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To effectively and consistently perform its role in the national economy, the maritime sector must have (a) an extensive, hierarchical port system, with all ports designed, developed, and operated in a manner conducive to their performing their respective roles in the hierarchy fully, effectively and efficiently; (b) a healthy, competitive, and varied shipping service industry that is aware of all facets of demand for sea transport services and responds effectively and efficiently to meet that demand; and (c) a system of maritime safety and marine environmental protection control that ensures that domestic and foreign shipping operate safely throughout Indonesian territorial waters, and in a manner that does not adversely affect the marine environment.

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Technical Report

Indonesia Shipping and Port Sector Policy Review

By Richard Blankfeld and Don Fritz

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Executive Summary

This assignment originated out of the Partnership for Economic Growth (PEG)[1] office within the Indonesian Ministry of Industry and Trade. A part of the responsibility of that office is to advise the Ministry on trade objectives and strategies for attaining those objectives. In line with that responsibility, the office designed a short-term assignment to ascertain the extent to which the inter-island sea transport, as the system is currently designed and operated, is supportive of achievement of trade growth objectives.

ROLE OF THE MARITIME SECTOR

As the world's largest archipelago nation, Indonesia requires an extensive and well-developed maritime sector. By being adequate and performing satisfactorily, the maritime sector of Indonesia can assist the country in attaining the following economic, social, and political goals:

- Economic integration of the archipelago, with unimpeded movements of traded commodities and labor between islands.
- Successful competition with other nations to supply a variety of processed and unprocessed commodities to the world markets for those commodities.
- Minimization of the costs of acquiring imports to supplement domestic supply in domestic markets, and in so doing raise the national standard of living.
- Social and political integration of the nation, with unimpeded movement of citizens between islands for a variety of purposes.
- Advancement of the services sector, with the generation of foreign exchange earnings in such service industries as shipping, ship repair services, and tourism.
- Self-sufficiency of the maritime sector, thereby avoiding drains on general government revenues, which might better be employed for attaining universal social services such as education and health.

In addition to the these goals, there are two other economic and political goals of government that will affect the manner in which the sea transport sector develops and operates, namely:

1. The portions of the archipelago that, collectively, are described as "Eastern Indonesia" are lagging behind Java, Bali and Sumatra in economic development, and accelerated development of these areas is a national goal.

[1] PEG is a United States Agency for International Development (USAID)-funded Project with the Government of Indonesia. The views expressed in this report are those of the authors and not necessarily those of USAID, the U.S. Government or the Government of Indonesia.

2. Decentralization has become a political goal in Indonesia, with some degree of political authority and responsibility being shifted from the national government to provincial and local governments.

To effectively and consistently perform its role in the national economy, the maritime sector must have (a) an extensive, hierarchical port system, with all ports designed, developed, and operated in a manner conducive to their performing their respective roles in the hierarchy fully, effectively and efficiently; (b) a healthy, competitive, and varied shipping service industry that is aware of all facets of demand for sea transport services and responds effectively and efficiently to meet that demand; and (c) a system of maritime safety and marine environmental protection control that ensures that domestic and foreign shipping operate safely throughout Indonesian territorial waters, and in a manner that does not adversely affect the marine environment.

CURRENT STATUS OF THE SECTOR

In 2001, Indonesia has a port system comprising more than 1800 ports, of which approximately two-thirds are "special ports", used for the most part by individual industries, such as the petroleum industry, the fertilizer industry, the timber and wood products industry, the cement industry, and various mining industries. Approximately 100 ports are designated as "commercial ports". These have been given over to four Indonesian Port Corporations (IPCs) that were created by the Indonesian Government in 1991. These ports are either being operated profitably at present, or are considered to have potential to be operated profitably in the short-to-medium term. The remaining 550-560 ports serve the public, but do not appear to have short-to-medium term potential for being operated profitably. Accordingly, these ports are designated as "non-commercial ports". In 2001, approximately one-half of the non-commercial ports have facilities for the effective accommodation of vessels.

Indonesia does not now have a port that can attract substantial levels of direct transoceanic services. The port of Singapore serves as Indonesia's principal port of transshipment. Transshipment at Singapore includes virtually all of Indonesia's containerized and other general cargo exports and imports in trade with Europe and North and South America, and nearly half of Indonesia's Intra-Asia trade as well.

Cargo shipping services were largely deregulated in 1988. Shipping companies were permitted to operate according to schedules of their own design, or to operate in response to requests for service. The companies were expected, however, to keep the Directorate General of Sea Communications informed of whatever routes and schedules were to be served, and to submit periodically reports on operations. Tariffs for cargo shipping services were to be set through direct negotiation between operators and shippers or consignees. The exception is that tariffs for the accommodation of road vehicles aboard roll-on-roll-off (RORO) vessels can only be set and adjusted with the approval of the Minister of Communications. Where passenger service fares are concerned, the setting of fares for economy class passengers continues to be regulated.

The domestic shipping industry has grown rapidly since the 1988 deregulation of cargo services. Whereas there were fewer than 400 operators in 1988, the number had more than quadrupled by 1999. The industry is competitive and responsive to demand. The principal limitation on quality of

service is the unsatisfactory performance of the public port system. This unsatisfactory performance stems mainly from two causes:

1. The role of the private sector in the development, management and operation of ports remains quite limited, and as a result ports remain largely unprepared for providing effective and efficient accommodation of containerized cargo, RORO vessels, and refrigerated cargo.
2. The manner of using labor at ports institutionalizes under utilization of port facilities, and tends to limit the potential for improvement of efficiency. At ports that ostensibly operate on a nearly continuous basis (24 hours normally, with just a few non-working days during the year), six hours out of every 24 are being lost because of institutionalized break periods. At many other ports, only one-shift of labor is provided, and willingness of labor to work overtime is limited.

In addition to these two principal causes for port inefficiency and delay, some operators complain of delay due to unfairness and corruption in berth assignment. Also, only a few ports have separate berthing facilities for passenger vessels, and the arrival of these vessels at ports with limited facilities generally means that cargo vessel loading/unloading operations must be interrupted as the passenger vessel displaces the cargo vessel at berth.

A number of government officials, and some representatives of the shipping industry as well, express their concern that operators "cannot afford" to acquire vessels, without some form of financial assistance, to expand the overall size of the fleet. Actually, operators "cannot afford" to spend four, five, and up to seven days at a port, when one or two ought to be sufficient. The forced underutilization of fleet due to port inefficiencies must, indeed, make it difficult for some operators to realize profits from their operations.

The Government distorts the domestic cargo service and Singapore feeder service markets by providing vessels free of charge to the public shipping company Djakarta Lloyd. That is, it is difficult for other shipping lines to compete head-to-head with a company that can undercut their cargo tariffs, since the company has no charter costs or vessel purchase debt servicing to cover. Nine of the newer vessels delivered to Djakarta Lloyd have a nominal capacity for 208 twenty-foot (container) equivalent units (TEUs), and small vessels of this size are suitable only for inter-island and Singapore feeder services. Another 15 of these vessels remain in Indonesian shipyards, with construction interrupted, reportedly due to lack of funds. Most other vessels recently or scheduled to be delivered to Djakarta Lloyd are larger and might be employed in Intra-Asia services.

The Government also provides passenger and RORO vessels free of charge to the two public companies that provide most of the sea transport passenger services in Indonesia, PT. PELNI and PT ASDP. On most of its passenger service routes, PELNI cannot fully meet demand, and its vessels are regularly and considerably overloaded. PELNI also performs cargo services, but reportedly does not receive government financial support in any form where these services are concerned. Many of the routes operated by these two companies are now commercially viable, or, in PELNI's case, might be made viable if unremunerative ports-of-call were eliminated from the routes.

PORT SYSTEM DEVELOPMENT PRIORITIES

The port of Tanjung Priok (Jakarta) is relatively more efficient than most other Indonesian ports, and vessels often require just a single day at this port. Both international and domestic shipping operators express regret, however, that the government missed an opportunity to establish a competitive situation in the port by entering into contracts with two container terminal operators that are both subsidiaries of the same foreign company. There are still medium-term possibilities for developing competition for international container traffic within Tanjung Priok and between this port and the designated new port development area at Bojonegara, several miles to the west of the existing port area. Provided that these opportunities are grasped, the port complex of Tanjung Priok/Bojonegara has the potential of becoming an international container "hub port," that would attract direct calls of transoceanic liner shipping services. Such a development, together with further development of the Surabaya port of Tanjung Perak, could result in a significant reduction in Indonesia's shipping costs for exports and imports. A March 1999 study financed by the Japanese International Cooperation Agency (JICA) estimates that realization of the potentials of Tanjung Priok/Bojonegara and accompanying development of Tanjung Perak could lower feeder shipping costs for Indonesia by nearly 40 percent, in comparison with continued reliance on Singapore for all transoceanic shipping service connections. This same development scenario is estimated to lower total shipping costs for trade between Indonesia and the west coast of the Americas by around 14 percent.

Although development of the Tanjung Priok/Bojonegara port complex to be a world class container port represents the single most important medium-term goal of the Indonesian maritime sector, it is important, as well, that Indonesia have an effective and efficient system of ports, and particularly that the 24 other "strategic ports" are appropriately designed and developed, and are well operated. The principal strategy for achieving this objective, also in the medium term, is expansion of the role of the private sector in these ports. It is instructive, perhaps, that several years ago the Philippine port system was no more developed than the port system of Indonesia, yet the Philippines now has 49 build-operate-transfer (BOT) projects in its port system development program. Each of Indonesia's four IPCs needs to prepare a corporate plan for transforming its port group into landlord ports.

The manner of using labor at ports is a problem best dealt with at the national level, under the leadership of the MOC. When considering the prospects for reaching an accord with labor, it might be kept in mind that a significant increase in the direct cost of labor would be affordable, provided that the indirect cost (which does not benefit anyone) is substantially reduced or even eliminated. A scheme for better use of labor is potentially very important, as it will effectively increase the capacity of existing facilities at continuous-operation ports by about one-third, and could raise the effective capacity of currently single-shift ports by an even greater extent. Solving the labor problem could also make port investment much more attractive to the private sector, with the probable result that Indonesia could select investor/operators from a larger number of competitive investment proposals.

One aspect of the port labor problem tends to discourage greater use of RORO vessels, namely the imposition of stevedoring charges on vehicles that merely roll on and off the ship, and therefore do not require stevedoring services. Greater use of RORO vessels could also be spurred by deregulating the rates for moving road vehicles aboard such vessels, and by providing appropriate berths at ports for end docking and loading, with parking areas for queued vehicles. The introduction

of RORO ferry service, two decades ago, across the Sunda Strait has demonstrated the potential economic impact of such service. In 2001, there are 23 vessels operating multiple trips each day across the Sunda Strait, and the economy of Lampung has become fully integrated with that of Java.

Currently, the more than 1,200 special ports in Indonesia are not permitted to accommodate third party cargo, except as might be permitted under specified conditions, on a temporary basis, with approval of the Minister of Communications. A number of these ports have facilities that are appropriate for only one or a group of commodities, and would be inappropriate for the accommodation of general cargo. There are a number of other special ports, however, that are "special" only in the sense that they are licensed for use by a single industry, but which have facilities appropriate for the accommodation of a large variety of commodities, extending in some cases even to containers. Some, probably most, in this latter group of ports are underutilized, in economic terms, by serving only own-account cargo. Revision of the law in regard to these ports to permit some greater flexibility in use could have at least the following advantages:

- They could provide supplementary capacity to the capacity of nearby public ports, during periods of public port congestion.
- They could serve isolated or relatively isolated areas in lieu of any public port with equivalent facilities.
- They could provide economically healthy competition to public ports in some areas, and in so doing better serve the shipping industry and the public.

Currently, the IPCs have some regulatory authority in regard to the special ports, including the special wharves at public ports. The authority of the IPCs to impose tariffs or dues on the special ports is undesirable from the standpoint of the IPCs, as well as from the standpoint, certainly, of the special ports. Management of the four IPCs ought to be entirely commercially oriented, and the ability to counterbalance operational inefficiency through collection of revenues largely or wholly unrelated to IPC services tends to moderate the drive to achieve commercial viability.

IMPROVING THE HEALTH OF THE DOMESTIC SHIPPING INDUSTRY

The most important need of the domestic shipping industry is the improvement of the port network. A sizeable reduction in port delay time will permit higher utilization of vessels, probably resulting in both cargo service tariff reductions and improved shipping company profitability. In addition to this critical need of the industry, the government could improve the environment for investment in the industry by

- Ending the subsidization of Djakarta Lloyd, at least where inter-island services and Singapore feeder services are concerned.
- Ending tariff controls on vehicle accommodation aboard RORO vessels, and discontinuing, as well, stevedoring charges imposed on vehicles not requiring any handling services at ports equipped to serve RORO vessels.
- Ending economy class passenger fare controls, and inducing other shipping lines to enter the passenger transport service industry.

- Making both PT. PELNI and PT. ASDP fully commercial companies. This will entail, on the one hand, ending government provision of vessels to the two companies, and permitting the companies to adjust services to eliminate unprofitable services that are not operated under government contract (see following point).
- Opening up to competition all desirable services that currently cannot be operated profitably without subsidy. Contracts for the provision of such services should be awarded through a transparent bidding and bid evaluation procedure, whereby the bidders state the minimum level of payment (subsidy) necessary for them to provide the stated level of service. All such contracts should be closely monitored after being awarded. PELNI and ASDP are likely to win some of these contracts fairly, but the operation would not compromise their commercial operations, as appears to be the case currently.
- Discontinue taxing the "profits" obtained by shipping lines when selling fully depreciated vessels for scrap, perhaps with the proviso that funds obtained from such sales must be applied to vessel replacement purchases.

In addition to the foregoing, the government might consider discontinuing the ten percent duty on vessels purchased from abroad. The discontinuance of this duty would also have another objective, as discussed in the following section.

THE FOREIGN FLAG ISSUE

Many Indonesian shipping companies are operating with chartered vessels registered in another country. From the standpoints of adequacy of shipping services and health of the domestic shipping industry, this is a non-issue. It becomes an issue to many officials, and some individuals and organizations in the private sector, however, because of the foreign exchange outflows associated with chartering such vessels. In an attempt to "correct" this perceived problem, the government has issued Government Regulation No. 82 (1999). The regulation seeks to expand the Indonesian-flag fleet by requiring that companies acting in the capacity of shipping agents for foreign shipping lines acquire a vessel of at least 5,000 Gross Registered Tons (GRT, or simply GT, as specified in the regulation). Rather than have a substantial effect on the size of the Indonesian-flag fleet, the regulation appears likely to reduce the size of the shipping agent industry, as most agents have not the financial wherewithal to acquire a vessel of such size.

Regardless of the effect of the regulation, Indonesia is not going to escape from sizeable foreign exchange outflows where shipping is concerned, except perhaps in the long term. The four basic options that Indonesia has where shipping services are concerned are:

1. Permit foreign shipping lines to accommodate cargo between Indonesian ports (i.e., cabotage). Whereas this option would tend to increase competitiveness in shipping services, it is not being contemplated. At present, foreign lines cannot even reposition their own empty containers between Indonesian ports. This option would have a high gross foreign exchange cost, as shipping profits, crew costs, insurance, etc. would all represent foreign exchange outflows. On the other hand, if shipping services were to become even more competitive than at present, Indonesian exports might be maximized.

2. Domestic shipping companies accommodate domestic movements of cargo, employing large numbers of chartered foreign-flag vessels (the current case).
3. Domestic shipping companies acquire new or used vessels from foreign sellers, and register the vessels under the Indonesian flag. In this case, foreign exchange for charters is replaced by outflows for vessel purchases. The time profile would be different, as purchases might be grouped more in some years than in others, whereas charter costs would be more evenly spread through time.
4. Domestic shipping companies acquire new vessels from domestic shipyards. The foreign exchange cost represents in the range of 50-55 percent of the purchase price, but the purchase price is currently much higher than in the cases of vessel acquisition opportunities offered by foreign sellers. Thus, the foreign exchange outflow effect of the foreign and local purchase options is roughly of the same magnitude.

In the long term, the Indonesian shipbuilding industry might be able to substantially reduce the foreign content of vessels built in Indonesia, and bring down the relative price as well. For at least another decade, however, Indonesia has no real option for avoiding a high foreign exchange bill where the combined total cost of ship purchases, ship charters, and payments to foreign shipping lines is concerned.

In the short term, the Indonesian Government might at least "level the playing field" between the purchase and charter options for expanding the fleet. As mentioned in the preceding section, there is a ten percent duty on imported vessels, whereas there is no such duty in the case of vessel chartering. One interviewed shipping company indicated that the import duty constituted sufficient financial reason to favor the charter option.

NEXT STEPS

If the Indonesian Government can do little in the short-to-medium term regarding foreign exchange outflows for vessels (chartered or purchased), it can do a great deal in regard to the more important matters of port system adequacy and domestic shipping industry health. The following is recommended:

- Hold a national workshop on the subject of port system development and operation. Principal issues to be discussed at the workshop would include expansion of the private sector role at ports, design and entrance into a "win-win" agreement with Indonesian port labor, and the importance of maintaining the port system, as a system, while also striving to implement the decentralization goal. The workshop would also discuss and agree upon an institutional approach to ensuring there will be continued consultation between stakeholders and government throughout the improvement plan implementation period, and beyond. Papers to be presented at the workshop will include the following:
  - World and regional experience in port sector reform and privatization (possibly a representative of the World Bank)
  - Results of the Asian study tour (discussed below)

  - Comparative analysis of Indonesian port sector performance on a regional and international level
  - Institutional arrangements and options for increasing private sector participation and investment in Indonesian ports
  - International experience in port labor negotiations accompanying port sector reform (likely a representative from the ILO)
  - Options and analysis for addressing the Indonesian flag vs. foreign flag issue
  - Legal and regulatory environment and conditions for promoting private investment in port infrastructure
- In preparation for the workshop, a study tour group (officials and stakeholders) would visit a few principal ports in other Asian countries to learn and discuss how they are proceeding with port and port system development. Attendees at the workshop should number at least 100, and stakeholders should be very well represented. Four days would be an appropriate workshop length, and the workshop conclusions and resolutions should be published and widely distributed in two languages (Indonesian and English) following the workshop.
- Following the workshop, provide technical assistance to one or more IPCs to prepare detailed corporate plans and strategies for increasing private sector participation in ports based on the workshop resolutions and subsequent elaborations, and changes in law and regulations. Further technical assistance could be provided to assist with the preparation of information memorandum, bidding documents, and solicitation of bids.
- Forge the institutional arrangement agreed upon by the workshop, to ensure that the national government/local government/stakeholder consultative process continues. Ideally, this institutional relationship would have a small secretariat, perhaps within a stakeholder organization like the Indonesian Chamber of Commerce.
- Design and implement the communications/information system improvements that are likely to be necessary to ensure that communications shall not constitute an impediment to the functioning of the forged new institutional arrangement to perpetuate the consultative process.
- Hold a well publicized meeting between the Ministry of Communications and national unions of port labor to sign (agreement having been reached at less publicized working meetings earlier) a “win-win” compact wherein labor direct costs are raised in exchange for altered work schedules and arrangements that would largely eliminate the current high indirect costs of port labor.
- Make the legislative and regulatory changes necessary to fully comply with the resolutions of the national workshop and follow-up elaboration by the forged new institutional arrangement.
- Develop a Directorate General of Sea Communications Internet “home page”, and include, *inter alia*, workshop resolutions, documents deriving from the meetings and other communications of the forged institutional arrangement for continuing the consultative

process, the finalized versions of the IPC corporate plans, as well as the most recent annual reports, and a mechanism for receiving from all port and shipping service providers and users any complaints there might be about maritime services and related services, such as Customs.

1. Introduction

This chapter provides background regarding the origin, objectives and methodology of the consulting assignment, background on the economic and social objectives of the sea transport sector, and an overview of the strategies for attaining those objectives.

CONSULTING ASSIGNMENT

Origin

The assignment to prepare an "Indonesian Inter-island Shipping Policy Paper" originated out of the "Partnership for Economic Growth" office within the Indonesian Ministry of Industry and Trade. A part of the responsibility of that office is to advise the Ministry on trade objectives and strategies for attaining those objectives. In line with that responsibility, the office designed a short-term assignment to ascertain the extent to which the inter-island sea transport, as the system is currently designed and operated, is supportive of achievement of trade growth objectives. The Ministry and USAID, sponsor of the Partnership for Economic Growth project, concurred that the sea transport assignment was appropriate to the objectives of the Ministry and the project, and authorized the assignment to proceed.

Objectives and Scope

The assignment originally was designed in two phases, with the sea transport industry first being examined, and the port system then being given consideration. Very early in the first phase of the assignment, however, it became clear that unsatisfactory development and operation of the port system constituted the principal constraint in the sea transport sector. Accordingly, the two phases were condensed into one. The objective of the assignment was to "provide a brief overview of the various issues and challenges confronting inter-island shipping in Indonesia." The "primary focus" of the paper to be produced by the two-person assignment team was to be the identification of how improvements in inter-island shipping policy might "facilitate domestic trade." The complete statement of work is included in this report as Appendix A.

Available Materials

The principal material that was available to the assignment team upon their arrival was the Final Report on the Study on the Port Development Strategy in the Republic of Indonesia, dated March 1999, and prepared by the Overseas Coastal Area Development Institute of Japan. The study was conducted under a contract with the Japanese International Cooperation Agency (JICA), and is hereinafter referred to as the "JICA Study". This study was comprehensive and well done, and was

valuable to the assignment team. The Directorate General of Sea Communications (DGSC) provided much of the other materials found useful by the assignment team, including especially traffic statistics and copies of relevant laws and government regulations. A more complete identification of materials reviewed by the assignment team is provided in Appendix B.

Program of Interviews

The assignment team had a number of meetings at the DGSC, including two chaired by the Director General and several with the Directorate of Ports & Dredging and the Directorate of Sea Traffic, and a meeting with the head of the Legal Section. Meetings were also held with associations of ship-owners, cargo-handlers, shipping agents, shipbuilders, and importers and exporters. The team met also with individual shipping lines including Samudera, Meratus, PELNI, Djakarta Lloyd, ASDP, and Maersk, and with an individual exporter, Hasfarm. The complete listing of meetings is presented as Appendix C.

ECONOMIC AND SOCIAL OBJECTIVES OF THE SEA TRANSPORT SECTOR

Economic and Commodity Trade Growth

The principal concern of the Ministry of Industry and Trade, regarding domestic shipping, is that the shipping industry will adequately support the attainment of trade potentials for all areas of Indonesia. The interview with Hasfarm identified both an instance of shipping helping to lower the cost of export shipment and an instance where shipping service inadequacy is placing a constraint on growth of production and trade. A farm in Solo was shifting its shipment of fresh produce exports from air transport to sea transport, because refrigerated liner shipping capacity had become available at Tanjung Emas, the port of Semarang. In Irian Jaya, on the other hand, the lack of regular liner shipping capacity at the port of Manokwari constitutes a problem for the company.

There is a general need for coordination between the transport sector and the production and trade sector. This coordination might desirably take place within the government and between the providers and users of shipping services in the private sector. In the Philippines, in the early 1990s, the domestic shipping industry and associations of shippers formed a council to meet regularly and discuss the cargo services that were needed, and would be needed within a few years, to enable the service industry to better respond to the needs of all parts of the Philippine archipelago.

Indonesia has a huge potential for exports sales of fresh horticultural and floricultural produce. The representatives of Hasfarm pointed out that, unlike neighboring nations, Indonesia has good potential for production of temperate zone commodities, as well as tropical horticultural commodities and flowers, because of the large extent of land area at cooler elevations.

The DGSC, working with the Ministry of Industry and Trade, and with local governments and the shipping industry, could help to ensure that agricultural diversification and fisheries development will be adequately served by appropriate shipping capacity, thus enabling the country to realize its potential for entering new and promising export markets.

Accelerated Development of the Eastern Regions

The "eastern regions" of Indonesia extend from Kalimantan and Lombok in the west to Irian Jaya in the east. It has long been a principal goal of the Indonesian Government to reduce the economic development disparity between these regions and the more developed islands of Java, Bali, and Sumatra. There are no railways in the eastern regions and the road networks are also not extensive. The implication for sea transport of limited inland transport networks is the necessity for a relatively larger number of ports, and low average annual cargo throughputs at those ports. With limited and irregular cargo transport demand per port, many areas of the eastern regions are served mainly by rakyat (traditional vessel) and perintis (pioneering) shipping. Also, despite their limited capacity to carry cargo, PELNI passenger ships perform limited cargo services in the eastern regions. There might be potential for significantly improving eastern region shipping services through expanded use of roll-on-roll-off (RORO) vessels. Port development requirements would, in that way, be relatively limited, and a sizable number of small ports might be more-or-less adequately served by such vessels.

Interisland Mobility of Indonesians

In addition to the normal needs for person travel among islands of an archipelago nation, Indonesia has especially large needs for such travel because of the substantial transmigration that has been occurring for decades from the overcrowded island of Java to Sumatra and the islands of the eastern regions. The transport services are needed not only for the initial transmigration of millions of individuals, but also for maintaining the "roots" of the transmigrants to their Java homeland. In 2001, the accommodation of this substantial demand is largely the responsibility of two public companies, PT. PELNI and PT. ASDP, and there is a need to "open up" sea transport passenger services to better ensure that demand is met, under safe operating conditions.

Self-Sustainability of the Sector

The Indonesian Government has, for decades, subsidized inter-island shipping passenger and cargo services. These subsidies have largely taken the form of the provision of ships to three public sector shipping and ferry companies, namely, Djakarta Lloyd (cargo vessels), PT PELNI (passenger vessels), and PT. ASDP (RORO ferries and five fast ferries). These subsidies act as a disincentive to the private sector to make shipping investments and initiate services, particularly in head-to-head competition with a public sector subsidized shipping company. The Government has also subsidized development and operation of the public port system. It might not be possible to end all of the subsidies in the short-to-medium term, since some perintis shipping routes do not have immediate prospects for becoming commercial operations. Also, some of the public ports are essential to local areas, yet have no immediate prospect for operating profitably. Nevertheless, a substantial proportion of current average annual sea transport sector subsidy levels could be eliminated, provided only that the role of the private sector is expanded quickly to take on all services that might be provided commercially, and to make all investments on which satisfactory returns can be realized, with good management. By substantially lowering the government subsidy level to the sea transport sector, the Government will be more financially able to support universal education and health care. Ending all

shipping subsidization other than perintis routes would have the substantial additional benefit of removing the government distortion of the marketplace that is currently acting as a disincentive to growth of the domestic shipping industry.

Decentralization

Indonesia is in the process of shifting some heretofore national government political responsibilities to provincial and other local governments. The implications of this goal for the Indonesian public port system have yet to be fully defined. Some amount of port ownership and development and management responsibilities is likely to be shifted, and it is important that this be accomplished while maintaining fully the integrity of the port system, as a national system.

Improved Balance of Trade in Services

The Indonesian Government is concerned about large foreign exchange outflows for shipping services, and seeks to develop a policy and strategy that could effectively reduce the magnitude of the outflows. It is important that this objective be placed in perspective. First of all, it is important that Indonesia be able to attract foreign shipping lines to Indonesian ports, since their participation in providing shipping services gives good assurance that Indonesian exports and imports can be adequately accommodated. Secondly, to the extent that foreign-flag vessels are employed to accommodate domestic cargo and even domestic legs of international shipments, the vessels are largely, or entirely, operated by domestic shipping companies. Thirdly, the presence of foreign-operated vessels in Indonesian waters, whether for the accommodation of Indonesian international cargoes or just passing through the area, offers the opportunity to provide maintenance and repair services for these vessels.

STRATEGIES FOR ATTAINING MARITIME SECTOR ECONOMIC OBJECTIVES

Deregulation of the Shipping Industry

Sea transport cargo services were largely deregulated in 1988. Operators were permitted to define their own services, and to reach agreement with shippers and consignees on tariffs for cargo transport services. At the time of deregulation, there were fewer than 400 shipping operators (excluding rakyat operators). In little over a decade, the number of operators more than quadrupled. For several years after deregulation, the shipping industry was slow to provide container-carrying capacity, but there is now a strong trend toward containerization of inter-island general cargo movements. According to shipping operators, the growth of domestic containerized cargo was impeded, first of all, by the inadequacy of ports for the accommodation of large numbers of containers, and also, on some routes, a heavy imbalance of cargo to be moved in two directions. The introduction of RORO capacity has also been slow, again because of the lack of appropriate facilities at ports, but also because, unlike all other cargo, tariffs for the accommodation of vehicles aboard RORO vessels continue to be regulated.

If Indonesia is to have a vibrant, growing, and market-responsive inter-island cargo shipping industry, however, then it behooves government to avoid subsidization of government-owned shipping cargo services on what otherwise are commercial roots. The government-owned line, Djakarta Lloyd, has been provided with a sizable fleet of vessels, at no cost to itself. Most recently, it has been provided with nine containerships with a rated capacity of 208 twenty-foot equivalent units (TEUs), and a practical capacity that is somewhat lower. The relatively small size of these vessels makes them suitable for inter-island services only. The company's older vessels, which are mostly conventional vessels and semi-container ships, are also employed in domestic services. The company operates a few containerships of 400-TEU capacity, and these are placed mainly in feeder service to and from Singapore. Larger vessels than these are operating in Indonesia-Australia services and in intra-Asia services.

There is a need to "open up" passenger services, which now are dominated by two public companies, PT. PELNI and PT. ASDP. Both of these companies, like Djakarta Lloyd, have been provided with vessels, at no cost to themselves. If private sector operators are to be induced to enter the passenger service market, under competitive market conditions, then they cannot be expected to compete with subsidized operations.

Restructuring and Reform of the Port System

Restructuring of the Indonesian port system got underway in 1991, with the creation of four Indonesian Port Corporations (IPCs). Shipping Law No.21 (1992) categorized ports as public ports and special ports, with the latter to be used for own-account shipping only, except that they may be given temporary permission to serve third party cargoes, under certain conditions. There are more than 1,200 special ports in Indonesia, and 656 public ports. The JICA Study indicates that 110-112 of the public ports are to be managed commercially by the four IPCs, whilst the remaining 544-546 public ports "are managed non-commercially by the government". Of the IPC ports, 70 are classified as international ports, and 51 of the special ports are also classified as international ports.

The annual reports of the IPCs indicate that they have taken over ownership, development, and management responsibilities for fewer than 100 ports, and the Directorate of Ports and Dredging allows that a few ports might have been downgraded from "commercial" to "non-commercial" status, since the JICA Study was completed. The JICA Study indicated that, from 1996 to 1997, the proportion of the government's port development budget that was directed to the development of IPC ports diminished significantly. Since that time, the government has increasingly directed port development funds to non-IPC ports, and the Directorate of Ports and Dredging indicates that, in the year 2000, the government directed no funds at all to development of IPC ports.

IPC I is headquartered at Medan, and has responsibility for the commercial ports of the three provinces of Aceh, North Sumatra, and Riau. The corporation has 22 ports, of which 16 have branch offices and six are subsidiary to nearby larger ports. The Riau port of Batam, just to the south of Singapore, is not included among the corporation's ports.

IPC II is headquartered at Tanjung Priok, the port of Jakarta. The corporation has responsibility for commercial seaports of eight provinces, namely, West Java, West Kalimantan, West Sumatra, Bengkulu, Jambi, South Sumatra, Lampung, and Bangka-Belitung. The corporation has a total of 12 ports.

IPC III is headquartered at Surabaya's port of Tanjung Perak. The corporation has ports in eight provinces, namely, East Java, Central Java, Bali, NTB, NTT, East Timor, Central Kalimantan, and Southern Kalimantan. The corporation has 19 ports with a branch office and 21 subsidiary ports.

IPC IV is headquartered at the Ujung Pandang port of Makassar. The corporation has a total of 21 ports serving a huge area stretching from East Kalimantan to Irian Jaya, and including Sulawesi and the Maluku islands.

The combined total of IPC ports, as indicated from IPC annual reports for 1998 and 1999, is 95.

Under existing law, the IPCs have some regulatory authority in regard to special ports, and the JICA report indicates that the IPCs have, in practice, extended this authority so that they are able to impose charges on special ports within the respective geographical area of the individual IPC. The JICA Study suggests that, for the most part, these imposed charges have no basis in terms of services rendered by the IPCs. The Study further suggests that the practice could be detrimental to the effectiveness of the IPCs themselves, as there is a tendency for them to become "rent seekers", rather than to focus strictly on managing and developing their own ports. Legislative change appears desirable to exclude all regulatory authority whatsoever from what are intended to be commercial corporations.

Legislative change appears to be desirable, also, to increase the corporative authority to handle the commercial affairs of the four IPCs. For example, the current procedure for adjusting the levels of port charges is laborious and time-consuming (two years or more). Also, port dues should be based on revenue needs of the individual port, and it should not be required that all commercial ports in the archipelago must adjust port dues to the identical extent and at the same time. Finally, and perhaps most importantly, the financial health of each IPC and even the individual port is dependent to a significant degree on working relationships that will be developed with private sector investor/operators and service providers. Accordingly, it is critical that IPC management, including the Board of Directors of each IPC, have full authority to pursue arrangements with the private sector, within government guidelines for such arrangements.

With the IPC port total of 95, the total of so-called "non-commercial" public ports is 561. Roughly one-half of these ports have facilities for the accommodation of ships calling. With the government budget for port development now being directed entirely to these ports, the number having facilities for vessel accommodation should continue steadily to rise.

Indonesian Shipping Fleet Expansion Initiatives

The Indonesian Government is concerned about the extent of use of foreign-flag vessels in inter-island shipping. At least a portion of that concern seems to stem from a misconception on the part of some that employment of foreign-flag vessels by anyone is tantamount to cabotage, that is, the accommodation of domestic cargoes by foreign shipping lines. Representatives of foreign and domestic shipping lines interviewed by the assignment team expressed their belief that there is very little cabotage, in fact, but there is a great deal of foreign-flag vessel chartering by Indonesian shipping companies. If so, then the government concern is not so much with the outflows of foreign exchange for payment of services, but rather with the outflow for chartering of vessels. (Where the accommodation of exports and imports is concerned, however, the foreign exchange outflow is for shipping services mainly.)

The origin of the vessel chartering "problem" is government policy in the 1980s. The government first required, in 1984, that all vessels of 25 years or older be retired from service and scrapped. At least one shipping company (the assignment team was told) had to retire its entire fleet of more than ten vessels. As a boost to the Indonesian shipbuilding industry, the government also forbade that vessels under a certain size (either 6,000 GRT or DWT) be imported. The shipbuilding industry, however, was only able to produce vessels at 2-to-3 times the cost of available second-hand vessels on the world market. This set of circumstances tended to contract the Indonesian-flag fleet.

When shipping services were deregulated in 1988, Indonesian shipping operators were permitted to charter foreign-flag vessels. It is not clear whether the proliferation of shipping companies, following deregulation, occurred primarily because of the improved environment for commercial operation or because of the removal of all restraints on vessel chartering.

To "correct" the foreign-flag chartering proliferation, the Indonesian Government issued Government Regulation No. 82 (1999), which specifies that all Indonesian companies which act as agents for foreign shipping lines must themselves own an Indonesian-flag vessel of at least 5,000 gross tons. Agents were given until October 5th, 2001 to comply with this vessel-owning qualification. According to the Indonesian Shipping Agent Association (ISAA), not more than 14 or 15 of their members can currently qualify. The intended effect of the new regulation is expansion of the Indonesian-flag fleet. The more likely effect is decimation of the shipping agent industry.

2. Interisland Shipping and Port Sector Performance

This chapter provides an overview of the interisland shipping and port sector in Indonesia, including its economic role, trends in interisland cargo and passenger traffic, and discussion of sector performance and problems.

ECONOMIC ROLE OF INTERISLAND SHIPPING

As the world's largest archipelago nation, Indonesia requires an extensive and well-developed maritime sector. By being adequate and performing satisfactorily, the maritime sector of Indonesia can assist the country in attaining the following economic, social, and political goals:

- Economic integration of the archipelago, with unimpeded movements of traded commodities and labor between islands.
- Successful competition with other nations to supply a variety of processed and unprocessed commodities to the world markets for those commodities.
- Minimization of the costs of acquiring imports to supplement domestic supply in domestic markets, and in so doing raise the national standard of living.
- Social and political integration of the nation, with unimpeded movement of citizens between islands for a variety of purposes.
- Advancement of the services sector, with the generation of foreign exchange earnings in such service industries as shipping, ship repair services, and tourism.
- Self-sufficiency of the maritime sector, thereby avoiding drains on general government revenues, which might better be employed for attaining universal social services such as education and health.

In addition to the these goals, there are two other economic and political goals of government that will affect the manner in which the sea transport sector develops and operates, namely:

3. The portions of the archipelago that, collectively, are described as "Eastern Indonesia" are lagging behind Java, Bali and Sumatra in economic development, and accelerated development of these areas is a national goal.
4. Decentralization has become a political goal in Indonesia, with some degree of political authority and responsibility being shifted from the national government to provincial and local governments.

From 1990 through 1997, the Indonesian economy experience rapid and sustained grow, with GDP exclusive of oil gas and petroleum products increasing at an annual average rate of 8.7 percent (Table 1). A surge in exports accompanied by increases in imports of unfinished goods for

processing and reexport resulted in record levels of Indonesian foreign and domestic trade and in demand for shipping and port services.

Table 1: Indonesia: Gross Domestic Product, 1990-2000
(Million Rupiah at Constant 1993 Prices)

Year	Total GDP	Total GDP excluding oil, gas and petroleum products
1990	271,967,606	221,885,268
1991	290,870,343	236,383,346
1992	309,659,776	256,350,660
1993	329,775,800	296,860,800
1994	354,640,800	320,651,800
1995	383,792,300	350,290,300
1996	413,797,915	378,871,222
1997	433,245,879	398,675,813
1998	376,892,534	342,510,181
1999	378,051,431	344,239,844
2000 a/	390,148,000	372,202,000
Average annual increase 1990-1997	6.9%	8.7%
Average annual increase 1997-1998	-13.0%	-14.1%
Average annual increase 1998-2000	1.7%	4.2%

a/ Estimated

Source: BPS, Gross Regional Domestic Product of Provinces in Indonesia by Industrial Origin, 1996-1999, August 2000 and World Bank, Indonesia: Accelerating Recovery in Uncertain Times, (Report No. 20991-IND), October 2000.

Even with the 14 percent contraction in Indonesian GDP in 1998, demand for shipping services remained high as the devalued rupiah made Indonesian exports extremely competitive. From 1998 through 200, the Indonesia GDP exclusive of oil, gas and petroleum products grew at an annual average rate of 4.2 percent.

Table 2 presents estimates prepared by Indonesian Central Bureau of Statistics (BPS) of the contribution of sea and inland water transport to gross regional domestic product by province from 1996 through 1999. At the national level, the sea and inland water transport sector increased its share of GDP from 1.1 percent in 1996 to 1.5 percent in 1999. At the provincial level, the share of sea and inland water transport are highest in Kalimantan, ranging from a high of 8.3 percent in Central Kalimantan to 7.1 percent in East Kalimantan and 5.2 percent and 5.1 percent in West Kalimantan and South Kalimantan, respectively. High shares of provincial GDP in sea and inland water transport are also found in West Sumatra (4.1 percent), Bengkulu (3.4 percent), North Sulawesi (3.1 percent), Jambi (2.4 percent) and DKI Jakarta (2.1 percent).

While DKI Jakarta accounts for 16.3 percent of national total GDP, it plays an even larger role in sea and inland water transport, contributing 23.1 percent of the national GDP for that sector.

Table 2. Contribution of Sea and Inland Water Transport to Gross Regional Domestic Product, 1996-1999 (Million Rupiah at Constant 1993 Price)

Province	Sea and Inland Water Transport				Total GRDP excluding Oil, Gas and Petroleum Products				Percent Sea and Inland Water Transport			
	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999
Dista Aceh	33,723	34,816	41,964	47,219	6,199,551	6,526,730	6,147,012	6,006,190	0.5	0.5	0.7	0.8
North Sumatra	140,950	150,081	152,896	181,956	23,273,774	24,876,013	22,142,993	22,731,358	0.6	0.6	0.7	0.8
West Sumatra	222,500	233,140	262,423	310,337	7,609,545	8,000,663	7,481,092	7,580,962	2.9	2.9	3.5	4.1
Riau	124,840	127,644	140,592	152,426	7,852,467	8,559,152	8,404,350	8,756,674	1.6	1.5	1.7	1.7
Jambi	62,075	64,999	66,979	69,581	3,048,452	3,152,831	2,870,868	2,947,794	2.0	2.1	2.3	2.4
South Sumatra	160,931	169,809	150,061	155,968	11,566,265	12,291,890	11,210,284	11,380,894	1.4	1.4	1.3	1.4
Bengkulu	36,436	48,083	52,832	56,903	1,688,755	1,740,586	1,631,372	1,657,636	2.2	2.8	3.2	3.4
Lampung	69,865	80,061	84,301	73,156	6,914,211	7,201,338	6,701,179	6,877,825	1.0	1.1	1.3	1.1
DKI Jakarta	897,126	920,677	918,294	1,202,114	66,164,802	69,543,445	57,380,516	56,638,192	1.4	1.3	1.6	2.1
West Java	143,609	162,102	219,417	225,955	64,736,936	68,010,839	55,266,774	57,158,509	0.2	0.2	0.4	0.4
Central Java	88,100	107,744	108,146	164,886	39,961,174	41,217,384	35,466,991	36,870,381	0.2	0.3	0.3	0.4
Dista. Yogyakarta	-	-	-	-	5,106,349	5,286,367	4,689,943	4,844,963	0.0	0.0	0.0	0.0
East Java	227,529	251,595	225,748	204,804	61,711,081	64,249,756	53,825,874	54,106,643	0.4	0.4	0.4	0.4
Bali	75,269	79,736	88,074	77,241	7,141,773	7,556,533	7,250,948	7,299,401	1.1	1.1	1.2	1.1
West Kalimantan	343,870	370,578	367,208	366,815	6,714,068	7,219,744	6,879,361	7,066,058	5.1	5.1	5.3	5.2
Central Kalimantan	329,886	416,805	330,378	331,635	4,036,205	4,290,178	3,993,187	3,986,710	8.2	9.7	8.3	8.3
South Kalimatan	250,034	272,559	268,611	298,816	5,921,276	6,188,606	5,785,052	5,876,057	4.2	4.4	4.6	5.1
East Kalimantan	719,764	762,582	785,271	813,980	10,720,157	11,407,648	11,090,281	11,447,872	6.7	6.7	7.1	7.1
North Sulawesi	104,274	111,225	115,779	121,610	3,574,698	3,767,016	3,677,888	3,887,112	2.9	3.0	3.1	3.1
Central Sulawesi	24,380	26,289	25,200	24,809	2,212,649	2,316,865	2,225,138	2,287,380	1.1	1.1	1.1	1.1
South Sulawesi	110,474	134,849	150,045	151,454	9,485,863	9,893,420	9,323,342	9,600,500	1.2	1.4	1.6	1.6
South East Sulawesi	7,214	8,295	9,514	10,809	1,561,002	1,644,024	1,549,033	1,588,457	0.5	0.5	0.6	0.7
Nusa Tenggara Barat	26,918	29,884	30,693	31,449	3,195,295	3,363,240	3,238,640	3,318,723	0.8	0.9	0.9	0.9
Nusa Tenggara Timur	11,373	12,877	14,503	17,421	2,685,534	2,836,328	2,758,906	2,834,510	0.4	0.5	0.5	0.6
Maluku	34,026	36,521	40,427	43,102	2,966,309	3,072,187	2,889,188	2,108,629	1.1	1.2	1.4	2.0
Irian Jaya	40,541	45,965	51,161	59,763	6,745,136	7,258,031	8,188,974	7,964,119	0.6	0.6	0.6	0.8
Total	4,285,707	4,658,916	4,700,517	5,194,209	372,793,327	391,470,814	342,069,186	346,823,549	1.1	1.2	1.4	1.5

Source: BPS, Gross Regional Domestic Product of Provinces in Indonesia by Industrial Origin, 1996-1999, August 2000.

The dramatic growth in Indonesian domestic and international seaborne trade from 1987 through 1999 is presented in Table 3. From 1987 through 1996, domestic seaborne trade increased from 56.2 million tons to 170.1 million tons corresponding to an average annual increase of 13.1 percent. After declines in 1997 and 1998 associated with the economic crisis, domestic seaborne trade increased again in 1999 to 180.2 million tons.

Table 3. Indonesia Domestic and International Seaborne Trade, 1987-1999 (000's tons)

Year	Domestic traffic	International traffic			Total
		Imports	Exports	Total	
1987	56,231	20,408	74,946	95,354	151,585
1988	58,117	21,601	82,125	103,726	161,843
1989	64,662	22,798	82,846	105,644	170,306
1990	78,671	26,105	109,490	135,595	214,266
1991	85,089	34,903	113,380	148,283	233,372
1992	99,386	38,178	128,571	166,749	266,135
1993	103,231	41,973	140,861	182,834	286,065
1994	117,232	48,857	155,869	204,726	321,958
1995	146,699	52,877	225,343	278,220	424,919
1996	170,133	57,670	279,393	337,063	507,196
1997	133,609	34,314	232,764	267,078	400,687
1998	125,174	35,207	231,579	266,786	391,960
1999	180,229	55,000	283,769	338,769	518,998
Average annual increase 1987-1996	13.1%	12.2%	15.7%	15.1%	14.4%
Average annual increase 1996-1999	1.9%	-1.6%	0.5%	0.2%	0.8%

Source: Data for 1987 though 1994 from BPS- Statistics Indonesia; 1995 through 1999 from Himpunan Data Angkutan Laut, Tahun 1999, Direktorat Lalu Lintas Angkutan Laut, Direktorat Jengeral Perhubungan laut, Jakarta, Agustus 2000.

A similar trend occurred in international seaborne traffic. Indonesian seaborne exports nearly quadrupled from 75.0 million tons in 1987 to 279.4 million tons in 1996, an annual average increase of rate of 15.1 percent. Following a decline of 8 percent during the 1997-1998 period, seaborne exports in 1999 increased to 283.8 million tons in 1999, surpassing the 1996 level. Indonesia seaborne imports grew at a slightly lower rate of 12.2 percent form 1987 through 1996 and by 1999 had nearly recovered to the record level of 57.7 million tons reached in 1996.

In 1999 Indonesian domestic and seaborne trade totaled 519.0 million tons. As will be discussed in more detail later, nearly one-third of the traffic consists of non-bulk cargo.

The interisland shipping sector also accommodates a substantial number volume of passengers traveling within the Indonesian archipelago. In 1999, a total of nearly 12.0 million passengers were carried by interisland transport companies, a nearly fourfold increase from the 3.1 million passengers carried in 1989 (Table 4). From 1989 through 1996, passengers carried increased at a phenomenal average annual rate of 19.6 percent. The rapid growth is due to the economic expansion that created new employment opportunities for Indonesians away from their home, resulting in periodic trips between family and work; and increased interisland tourist travel.

Table 4. Interisland Passengers, 1989-1999

Year	PELNI	Other Companies	Total
1989	1,924,544	1,218,219	3,142,763
1990	2,225,161	1,470,878	3,696,039
1991	2,472,233	3,302,718	5,774,951
1992	2,788,718	3,157,222	5,945,940
1993	3,991,041	3,144,386	7,135,427
1994	4,637,673	5,474,671	10,112,344
1995	5,246,417	6,521,799	11,768,216
1996	4,433,058	6,543,831	10,976,889
1997	4,382,606	3,908,514	8,291,120
1998	6,619,417	4,368,694	10,988,111
1999	8,606,610	3,374,957	11,981,567
Average annual increase 1989-1996	12.7%	27.1%	19.6%
Average annual increase 1996-1999	24.8%	-19.8%	3.0%

Source: Himpunan Data Angkutan Laut, Tahun 1999, Direktorat Lalu Lintas Angkutan Laut, Direktorat Jengeral Perhubungan laut, Jakarta, Agustus 2000.

In recent years, the share of passengers carried by PELNI, a state-owned company, has increased substantial. In 1996, PELNI carried 4.4 million passenger or 40 percent of the 11.0 million total interisland passengers. By 1999, PELNI had increased it share to nearly 72 percent of the total 12.0 million passenger. During this period, PELNI substantially expanded and modernized it fleet of passenger vessels, adding six new 2,000-passenger vessels between 1993 and 1998; four 1000-passenger vessels during 1994-1995; and three 500-passenger vessels between 1996 and 1999. It is believed that all of these vessels were acquired by the Indonesian government and provided at no cost to PELNI.

INDONESIAN PORT SECOR

The Indonesian port system is organized into a hierarchic system consisting of 25 major ports and another 70 commercial ports managed by the four Indonesian Port Corporations (IPCs) that were created by the Indonesian Government in 1991. These ports are either being operated profitably at present, or are considered to have potential to be operated profitably in the short-to-medium term. In addition, there are approximately 550 other ports that serve the public, but do not appear to have short-to-medium term potential for being operated profitably. Accordingly, these ports are designated as “non-commercial ports”. Indonesia also has 1,233 private ports that serve special private sector needs such as industry, mining, fishing, etc. These private ports are called "special ports". Approximately 50 of these special ports are classified to handle international traffic.

International and domestic traffic handled at Pelindo ports in 1999 is presented in Table 5[2]. The 95 IPC ports handled 342.0 million tons of cargo, with 65 percent of the traffic handled at Pelindos II

[2] Detailed tables showing traffic at individual Pelindo ports are presented in Appendix D.

Table 5. International and Domestic Traffic at Commercial Ports, 1999 (000's tons)

Item	Pelindo I	Pelindo II	Pelindo III	Pelindo IV	Total
Imports					
General cargo	266.7	1,659.4	1,435.8	42.2	3,404.1
Bag cargo	1,252.2	2,715.0	2,064.7	149.7	6,181.6
Unitized cargo	266.4	1,697.5	213.6	13.6	2,191.1
Dry bulk	1,088.5	6,880.9	3,946.4	365.3	12,281.1
Liquid Bulk	2,424.4	5,632.0	7,268.8	2,001.9	17,327.1
Container cargo	496.9	5,439.9	818.6	-	6,755.4
Subtotal	5,298.2	24,024.7	15,747.9	2,572.7	47,643.5
Exports					
General cargo	789.2	3,708.0	2,488.3	86.2	7,071.7
Bag cargo	200.4	2,373.1	676.6	479.7	3,729.8
Unitized cargo	2,171.7	2,553.1	283.6	825.5	5,833.9
Dry bulk	7,484.7	7,212.0	21,780.2	5,034.2	41,511.1
Liquid Bulk	23,788.4	2,822.3	1,084.9	10,838.9	38,534.5
Container cargo	988.4	6,279.6	1,299.7	-	8,567.7
Subtotal	35,422.8	24,948.1	27,613.3	17,264.5	105,248.7
Domestic -Unloading					
General cargo	1,805.6	5,938.0	6,665.6	1,293.6	15,702.8
Bag cargo	1,247.5	2,602.7	1,441.6	2,131.3	7,423.1
Unitized cargo	362.9	941.6	250.5	337.5	1,892.5
Dry bulk	2,389.4	11,705.8	11,433.3	1,356.2	26,884.7
Liquid Bulk	4,983.9	13,424.5	20,274.5	6,765.1	45,448.0
Container cargo	343.4	1,353.0	1,823.6	2,323.9	5,843.9
Subtotal	11,132.7	35,965.6	41,889.1	14,207.6	103,195.0
Domestic -Loading					
General cargo	688.8	3,928.2	4,279.1	485.8	9,381.9
Bag cargo	514.2	2,246.8	1,968.6	721.4	5,451.0
Unitized cargo	1,293.6	594.9	722.5	91.0	2,702.0
Dry bulk	1,366.1	8,875.2	3,545.2	712.7	14,499.2
Liquid Bulk	18,873.5	12,897.6	9,034.2	6,529.1	47,334.4
Container cargo	205.3	2,477.8	2,755.5	1,085.9	6,524.5
Subtotal	22,941.5	31,020.5	22,305.1	9,625.9	85,893.0
Total all cargo					
General cargo	3,550.3	15,233.6	14,868.8	1,907.8	35,560.5
Bag cargo	3,214.3	9,937.6	6,151.5	3,482.1	22,785.5
Unitized cargo	4,094.6	5,787.1	1,470.2	1,267.6	12,619.5
Dry bulk	12,328.7	34,673.9	40,705.1	7,468.4	95,176.1
Liquid Bulk	50,070.2	34,776.4	37,662.4	26,135.0	148,644.0
Container cargo	2,034.0	15,550.3	6,697.4	3,409.8	27,691.5
Total	74,795.2	115,958.9	107,555.4	43,670.7	341,980.2

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

(34 percent) and Pelindo III (31 percent)[3]. Together Pelindos II and III account for 84 percent of all imports and 50 percent of all exports handled at IPC ports.

More than 43 percent (148.6 million tons) of total international and domestic cargo handled at the IPC ports in 1999 was liquid bulk. Another 28 percent (95.2 million tons) of the traffic was handled as dry bulk. The remaining 29 percent of cargo (98.7 million tons) was handled as break-bulk general cargo, bagged cargo unitized cargo or containerized cargo.

Industry sources indicate that containerized cargo has been increasing rapidly in recent years for both the international and domestic trade with growth rates in excess of 15 percent. Nonetheless, the share of Indonesian international and domestic traffic handled in containers remains low by industry standards. For the IPC ports, roughly 28 percent of the non-bulk cargo handled in 1999 was in containers. For imports and exports, approximately 35 of the non-bulk cargo were containerized, while only 22 percent of domestic trade was containerized. While a detailed commodity and trade route analysis has not been performed, it would seem reasonable giving industry standards and current trends in Indonesian trade that the share of non-bulk cargo shipped in containers could double within the next 10 years. Coupled with the normal growth of overall international and domestic trade, the volume of container cargo to be handled at Indonesian ports I may well triple in the next 10 years. The accommodation of this anticipated explosive growth in container traffic presents both opportunities and challenges for the Indonesian port sector.

Table 6. Containerized Cargo as Percent of Total Non-Bulk Cargo, 1999

	Pelindo				
Item	I	II	III	IV	Total
Imports	21.8	47.3	18.1	-	36.5
Exports	23.8	42.1	27.4	-	34.0
Domestic	8.5	19.1	23.0	40.3	22.5
Total	15.8	33.4	22.9	33.9	28.1

Source: Table 5.

In 1999, IPC ports handled 3.2 million TEUs of containers, split roughly equally between international and domestic movements (Table 7). The port of Tajung Priok in IPC-2 handled 1.4 million TEUS followed by the port of Tanjung Perak with 583 thousand TEUs. Other ports with sizable container movements include Gabion in IPC-1 with 257 thousand TEUs, Tanjung Emas in IPC-2 with 231 thousand TEUs, Banjarmasin in IPC-3 with 109 thousand TEUs, and Makassar and Samarinda in IPC-4 with 126 thousand TEUs and 110 thousand TEUs, respectively.

[3] Due to the unloading and loading of domestic traffic at different Indonesian ports, domestic traffic presented from port statistics in Table 5 double the domestic traffic reportedly carried by interisland vessels.

Table 7. Containers Handled at IPC Ports, 1999 (TEUS)

IPC region and port	International trade	Domestic	Total
IPC -1			
Belawan	-	9,879	9,879
Utpk. Gabion	203,668	53,018	256,686
Subtotal IPC-1	203,668	62,897	266,565
IPC-2			
Tajung Priok a/	1,193,818	224,539	1,418,357
Panjang	65,212	-	65,212
Palembang	-	46,605	46,605
Teluk Bayur	-	14,983	14,983
Pontianok	4,917	63,247	68,164
Banten	-	67	67
Jambi	-	20,529	20,529
Subtotal IPC-2	1,263,947	369,970	1,633,917
IPC-3			
Tanjung Perak	184,895	397,979	582,874
Tanjung Emas	-	230,698	230,698
Banjarmasin	-	109,258	109,258
Benoa	-	17,489	17,489
Tenau Kupang	-	4,554	4,554
Sampit	-	11,971	11,971
Pulang Pisau b/	288	182	470
Subtotal IPC-3	185,183	772,131	957,314
IPC-4			
Makassar	-	125,518	125,518
Balikpapan	-	27,542	27,542
Samarinda	-	110,118	110,118
Bitung	-	48,875	48,875
Ambon	-	6,962	6,962
Sorong	-	835	835
Jayapura	-	2,065	2,065
Biak	-	314	314
Subtotal IPC-4	-	322,229	322,229
Total all IPCs	1,652,798	1,527,227	3,180,025

a/ Includes 9653 Teus of transshipment containers.

b/ Includes 144 Teus of transhippment containers

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Characteristics of the 16 existing container terminals at Indonesian ports are presented in Table 8. Together these terminals possess 48 cranes for loading/unloading containers consisting of 33 gantry cranes and 15 mobile cranes.

Table 8. Indonesia: Container Terminal Facilities, 2000

		Berth			Container yard		Cranes		CFS
Port	Terminal	Length	Width	Depth	Area (ha)	Capacity (teus)	Gantry	Mobile	(m2)
Tanjung Priok	CT I	900	27	11.0	31.4	27,800	8	3	-
	CT II	510	16	8.6	6.8	7,400	4	1	-
	CT III	450	40	14.0	15.0	12,900	5	-	-
	Multipurpose (interisland)	400	n.a.	n.a.	4.0	3,500	2	-	4,950
	Pasoso	-	-	-	1.5	714	-	-	4,500
Belawan	Gabion	500	31	10.0	7.7	8,000	2	5	10,400
	Semi Cont.	350	26	10.0	3.0	-	-	4	12,910
Tanjung Perak	TPK 1 (semi)	420	50	8.0	2.2	-	-	-	-
	TPK II	500	50	10.5	12.0	14,850	5	-	10,000
Panjang	Berth E	300	29	12.0	4.5	4,745	2	2	6,000
Tajung Emas	Container	345	25	10.0	7.0	7,400	2	-	3,464
U. Pandang	New Hatta	490	n.a.	10.0	2.5	7,616	-	-	3,564
Banjarmasin	Trisakti (semi)	200	12	7.0	3.0	2,000	3	-	-
Teluk Bayer	Semi	150	n.a.	9.5	3.9	n.a.	-	-	-
Palembang	Semi	150	20	n.a.	4.6	n.a.	-	-	-
Pontianok	CT07 (Semi)	100	18	5.5	2.5	n.a.	-	-	-

Source: JICA, Final Report, The Study on the Port Development Strategy in the Republic of Indonesia, March 1999, Appendix Volume 2.

INTERISLAND SHIPPING PERFORMANCE AND PROBLEMS

Cargo shipping services were largely deregulated in 1988. Shipping companies were permitted to operate according to schedules of their own design, or to operate in response to requests for service. The companies were expected, however, to keep the Directorate General of Sea Communications informed of whatever routes and schedules were to be served, and to submit periodically reports on operations. Tariffs for cargo shipping services were to be set through direct negotiation between operators and shippers or consignees. The exception is that tariffs for the accommodation of road vehicles aboard roll-on-roll-off (RORO) vessels can only be set and adjusted with the approval of the Minister of Communications. Where passenger service fares are concerned, the setting of fares for economy class passengers continues to be regulated.

The domestic shipping industry has grown rapidly since the 1988 deregulation of cargo services. Whereas there were fewer than 400 operators in 1988, the number had more than quadrupled by 1999. The industry is competitive and responsive to demand. The principal limitation on quality of service is the unsatisfactory performance of the public port system.

Port Congestion, Delays and Inefficiencies

In general, the operating performance of Indonesian ports is woefully inadequate from the perspective of its users, shipping companies, and shippers. Port performance during 1999 for IPC ports is presented in Table 9 in terms of productivity indicators such as berth occupancy rate, vessel turn-around time and working time ratio. Overall, the average berth occupancy at IPC ports in 1999 was 59 percent, indicating that for Indonesian ports are on the threshold of exponential increases in waiting time with additional traffic growth. Due to the nature of queueing, waiting times will increase most dramatically at the smaller ports with only a few berths. Average turn-around time for ocean-going vessels is 76 hours or slightly over 3 days. For inter-island vessels, the average turnaround time is 120 hours, or 5 days. Working time as a percentage of turnaround time averages 26 percent for oceangoing vessels and 37 percent for interisland vessels.

Reasons reported for non-working time for interisland vessels at selected IPC ports are presented in Table 10. By far, most of the non-working time is attributable to the general category of non-operating time. This includes breaks between shifts for workers, down time at night when many of the ports do not operate, and down time not otherwise classified. It is interesting that with the exception of Palembang, most port did not have a high percentage of non-working time due to vessels waiting to berth.

Table 9. Indonesia Port Productivity Indicators by Pelindo and Selected Port, 1999

Pelindo and port	Berth occupancy rate (percent)	Ocean-going vessel(Samudera) Turn-around time (hours)	Working time (hours)	Working time as percent of turn-around	Inter-island vessels (Nusantara) Turn-around time (hours)	Working time (hours)	Working time as percent of turn-around
Pelindo I							
Belawan	63.0	67.9	19.2	28.3	80.8	26.1	32.3
Dumai	83.1	150.2	28.9	19.2	132.7	29.5	22.2
Lhok Seumawe	56.1	135.4	40.2	29.7	78.9	22.5	28.5
Tanjung Pinang	74.0	47.0	6.3	13.4	176.1	18.7	10.6
Pekanbaru	52.8	109.3	20.0	18.3	155.7	25.9	16.6
Kuala Tanjung	73.3	48.5	25.3	52.2	37.3	37.2	99.8
Bagan Siapi-Api	12.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sibolga	61.9	42.2	14.2	33.6	42.4	18.2	42.9
Malahayati	18.2	50.0	16.0	32.0	116.4	43.9	37.7
Tanjung Balai Asahan	81.0	116.7	5.1	4.4	164.0	12.2	7.4
Tembilahan	79.5	n.a.	n.a.	n.a.	200.7	48.2	24.0
Gunung Sitoli	24.4	n.a.	n.a.	n.a.	24.1	7.9	32.8
Begkalis	22.5	n.a.	n.a.	n.a.	10.0	4.4	44.0
Kuala Langsa	58.1	221.8	20.8	9.4	182.5	28.1	15.4
Selat Panjang	49.8	n.a.	n.a.	n.a.	122.4	19.3	15.8
Rengat	27.2	n.a.	n.a.	n.a.	219.3	59.5	27.1
Simple average	52.4	61.8	12.3	15.0	109.0	25.1	28.6
Pelindo II							
Tajung Priok	65.9	84.3	47.4	56.2	82.3	37.0	45.0
Panjang	38.7	54.9	16.1	29.3	107.4	23.9	22.3
Palembang	60.5	61.9	15.7	25.4	91.4	19.1	20.9
Teluk Bayur	51.9	175.0	60.3	34.5	123.3	36.3	29.4
Pontianok	35.1	45.7	18.8	41.1	46.5	26.9	57.8
Cirebon	71.7	110.8	38.8	35.0	162.6	33.5	20.6
Banten	23.3	98.5	25.9	26.3	41.1	15.8	38.4
Sunda Kelapa	68.2	n.a.	n.a.	n.a.	208.6	76.4	36.6
Jambi	34.3	97.8	46.2	47.2	206.6	75.6	36.6
Bengkulu	64.9	136.6	31.9	23.4	137.0	57.5	41.9
Tanjung Pandan	87.1	78.1	16.7	21.4	132.4	19.7	14.9
Pkl. Balam	69.6	167.3	18.4	11.0	286.3	31.6	11.0
Ketapang	89.1	n.a.	n.a.	n.a.	73.5	12.0	16.3
Simple average	58.5	85.5	25.9	27.0	130.7	35.8	30.1

Pelindo and port	Berth occupancy rate (percent)	Ocean-going vessel(Samudera) Turn-around time (hours)	Working time (hours)	Working time as percent of turn-around	Inter-island vessels (Nusantara) Turn-around time (hours)	Working time (hours)	Working time as percent of turn-around
Pelindo III							
Tanjung Perak	79.4	144.6	34.2	n.a.	96.0	31.7	33.0
Tanjung Emas	58.3	78.0	48.8	62.6	55.9	34.9	62.4
Banjarmasin	71.5	47.9	22.7	47.4	35.7	17.4	48.7
Benoa	65.6	31	28.3	91.3	48.3	46.7	96.7
Tenau Kupang	81.5	72.5	31.0	42.8	87.2	36.0	41.3
Lembar	72.2	323.3	83.5	25.8	159.7	46.1	28.9
Gresik	79.1	59.8	26.6	44.5	172.3	79.0	45.9
Tanjung Wangi/Meneng	78.3	136.4	74.9	54.9	207.3	127.4	61.5
Sampit	55.4	58.2	16.8	28.9	77.5	18.8	24.3
Tanjung Intan/Cilacap	50.0	125.4	61.1	48.7	95.3	40.6	42.6
Probolinggo	69.9	56.0	26.1	46.6	117.4	44.7	38.1
Tegal	36.6	n.a.	n.a.	n.a.	283.9	9.0	3.2
Celukan Bawang	75.4	n.a.	n.a.	n.a.	152.5	39.9	26.2
Maumere	50.5	32.7	9.2	28.1	139.5	26.4	18.9
Bima	40.6	77.0	22.0	28.6	76.8	16.2	21.1
Pulang Pisau	25.9	16.7	9.9	59.3	53.4	18.8	35.2
Kotabaru	34.9	187.1	119.3	63.8	206.4	107.7	52.2
Kumai	29.0	62.5	20.8	33.3	30.3	10.7	35.2
Simple average	58.6	83.8	35.3	39.2	116.4	41.8	39.7
Pelindo IV							
Makassar	56.3	135.5	97.4	71.8	48.6	31.8	65.4
Balikpapan	93.8	72.8	43.1	59.2	88.5	60.8	68.7
Samarinda	69.2	56.4	34.4	61.0	75.5	31.3	41.4
Bitung	74.2	95.1	35.9	37.7	121.3	39.9	32.9
Ambon	50.5	83.1	44.8	53.9	63.3	48.5	76.7
Sorong	71.9	104.5	31.5	30.1	57.1	16.5	28.8
Jayapura	48.6	n.a.	n.a.	n.a.	100.0	32.0	32.0
Biak	57.7	149.1	72.3	48.5	193.7	89.3	46.1
Tarakan	74.6	133.4	27.0	20.2	409.0	133.7	32.7
Pantoloan	71.0	137.6	49.4	35.9	70.1	27.0	38.5
Ternate	60.7	106.0	50.0	47.2	184.0	60.5	32.9
Pare-Pare	72.0	n.a.	n.a.	n.a.	85.5	13.7	16.0
Kendari	66.7	58.0	4.0	6.9	143.3	37.2	26.0
Merauke	55.6	n.a.	n.a.	n.a.	193.8	68.6	35.4
Manokwari	48.1	n.a.	n.a.	n.a.	92.9	30.1	32.4
Gorontalo	87.1	166.5	41.5	24.9	230.7	48.3	20.9
Fak-Fak	76.2	n.a.	n.a.	n.a.	76.3	16.9	22.1
Toli-Toli	47.6	n.a.	n.a.	n.a.	31.4	25.3	80.6
Simple average	65.6	72.1	29.5	27.6	125.8	45.1	40.5
Overall average	58.8	75.8	25.7	27.2	120.5	36.9	34.7

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Table 10. Reason for Non-working Time for Inter-island Vessels at Major Ports, 1999 (hours)

Pelindo and port	Turn-around time	Working time	Reason for non-working time				
			Waiting time	Approach time	Postpone time	Non-operating time	Idle time
Pelindo I							
Belawan	80.8	26.1	2.4	2.1	12.1	34.2	3.9
Dumai	132.7	29.5	6.0	8.5	48.9	33.2	6.7
Lhok Seumawe	78.9	22.5	1.1	1.2	12.7	39.4	2.0
Tanjung Pinang	176.1	18.8	-	0.9	11.5	141.4	3.5
Pekanbaru	155.7	25.9	2.6	10.3	2.5	112.3	2.0
Pelindo II							
Tajung Priok	82.3	37.0	1.6	1.9	11.5	23.2	7.1
Panjang	107.4	23.9	3.8	5.2	28.7	36.2	9.6
Palembang	91.4	19.0	14.1	30.6	-	23.7	4.0
Teluk Bayur	123.3	36.3	2.6	21.6	27.4	17.8	17.7
Pontianok	46.5	26.9	-	2.3	0.2	13.4	3.7
Jambi	206.6	75.6	1.2	31.9	23.4	72.1	2.3
Pelindo III							
Tanjung Perak	96.0	31.7	2.8	4.0	38.6	13.9	5.1
Tanjung Emas	55.9	34.9	-	1.2	0.8	13.0	6.0
Banjarmasin	35.7	17.4	1.7	6.0	-	10.1	0.5
Pelindo IV							
Makassar	48.6	31.8	-	0.9	10.5	3.2	2.1
Balikpapan	88.5	60.8	2.7	3.6	11.1	7.8	2.5
Samarinda	75.4	47.7	2.3	6.9	1.5	17.1	-
Bitung	121.3	39.9	2.9	0.5	21.2	47.0	9.8

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

The unsatisfactory performance of Indonesian ports stems mainly from two causes:

- The role of the private sector in the development, management and operation of ports remains quite limited, and as a result ports remain largely unprepared for providing effective and efficient accommodation of containerized cargo, RORO vessels, and refrigerated cargo.
- The manner of using labor at ports institutionalizes underutilization of port facilities, and tends to limit the potential for improvement of efficiency. At ports that ostensibly operate on a nearly continuous basis (24 hours normally, with just a few non-working days during the year), six hours out of every 24 are being lost because of institutionalized break periods. At

many other ports, only one-shift of labor is provided, and opportunities for overtime work are limited.

In addition to these two principal causes for port inefficiency and delay, some operators complain of delay due to unfairness and corruption in berth assignment. Also, only a few ports have separate berthing facilities for passenger vessels, and the arrival of these vessels at ports with limited facilities generally means that cargo vessel loading/unloading operations must be interrupted as the passenger vessel displaces the cargo vessel at berth.

A number of government officials, and some representatives of the shipping industry as well, express their concern that operators "cannot afford" to acquire vessels, without some form of financial assistance, to expand the overall size of the fleet. Actually, operators "cannot afford" to spend four, five, and up to seven days at a port, when one or two ought to be sufficient. The forced under utilization of fleet due to port inefficiencies must, indeed, make it difficult for some operators to realize profits from their operations.

Trade Imbalance and Need for Repositioning of Containers

International and domestic container flows are highly imbalanced at Indonesian ports, a situation that exacerbates the present poor operating performance and at the same time provides an opportunity for improving overall port performance in the near-to-medium term. Table 11 presents the percentage of containers handled at major IPC ports in 1999 that were empty. Overall, 32 percent of imported containers were empty, however some ports had extremely high rates of empty imported containers, such as Pontianok (84 percent), Panajang (83 percent) and Gabion (54 percent). Overall 63 percent of the domestic trade containers unloaded at IPC ports were empty. Obviously, the prevalence of empty containers increases the berthing time and usage of cranes and contributes to the lengthy vessel turnaround times. Further, the accommodation of large numbers of empty containers tends to contribute to port congestion, as the empty containers typically have lengthier dwell times at the port due to the lack of incentives to clear empty containers from port container yards.

Given the relatively low rates of containerization of Indonesia non-bulk domestic and international trade, there is ample scope for moving break-bulk, bagged, and unitized cargo imports and domestic cargo into containers, thereby utilizing containers presently handled as empties. If the percentage of empty containers were to decrease by one-third or one-quarter, there would be a direct reduction in overall vessel turnaround time. This is because cargo previously break-bulk, bagged, and unitized cargo with lower unloading productivity rates would now be handled in containers that were already being handled anyway at the port.

Table 11. Percent of Containers Handled that are Empty at IPC Ports, 1999

IPC region and port	Imports	Exports	Unloaded	Loaded	Total
IPC -1					
Belawan	-	-	42.7	35.3	40.0
Utpk. Gabion	53.9	4.1	10.3	29.9	26.5
Subtotal IPC-1	53.9	4.1	16.1	30.6	27.0
IPC-2					
Tajung Priok	23.4	3.2	52.3	17.6	16.4
Panjang	82.8	3.7	-	-	42.8
Palembang	-	-	70.1	11.2	39.0
Teluk Bayur	-	-	37.2	9.3	22.2
Pontianok	84.2	7.7	18.8	50.1	34.9
Banten	-	-	-	-	-
Jambi	-	-	89.1	1.2	44.5
Subtotal IPC-2	26.7	3.2	50.0	20.8	19.3
IPC-3					
Tanjung Perak	39.7	1.7	58.9	47.2	41.1
Tanjung Emas	-	-	60.6	0.8	27.2
Banjarmasin	-	-	13.5	30.9	21.6
Benoa	-	-	95.6	13.0	54.2
Tenau Kupang	-	-	11.9	44.5	26.9
Sampit	-	-	46.7	29.3	38.2
Pulang Pisau	-	100.0	100.0	-	50.0
Subtotal IPC-3	39.6	1.9	50.7	32.3	35.7
IPC-4					
Makassar	-	-	2.1	23.7	12.7
Balikpapan	-	-	7.1	77.9	35.6
Samarinda	-	-	9.9	41.6	25.5
Bitung	-	-	1.5	75.3	38.6
Ambon	-	-	-	12.0	5.6
Sorong	-	-	1.4	73.8	6.7
Jayapura	-	-	-	96.4	35.4
Biak	-	-	67.3	9.8	41.1
Subtotal IPC-4	-	-	5.1	42.0	22.9
Total all IPCs	31.5	3.2	62.7	31.5	25.3

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Pioneer Routes

For three decades, the Government of Indonesia has designated certain low volume interisland cargo and passenger routes as pioneer routes (perintis) on which service would be subsidized. The program's objectives coincide with other government policies and incentives to facilitate the development of remote areas.

The program has had mixed success. While there have been some routes that have developed sufficient traffic to be transferred from pioneer to commercial status, generally the cargo volumes on pioneer routes remain low. Table 12 presents cargo loaded on pioneer vessels by province for the 1992-2000 period. Total cargo loaded on pioneer vessels in 2000 was 83 thousand tons. This represents approximately four-one hundredths of one percent of the 180 million tons of domestic interisland traffic (1999).

From 1992 through 2000, cargo traffic on pioneer vessels declined from 260 thousand tons to 83 thousand tons. However, the decrease is primarily attributable in the decline in pioneer cargo loaded in South Sulawesi. It is believed that this decline is due to the reclassification of pioneer routes to commercial routes. Excluding South Sulawesi from the data, cargo loaded on pioneer vessel in other provinces increased modestly during the 1992-2000 period.

Table 12. Cargo Loaded on Pioneer Vessels by Province, 1992-2000 (tons)

Province	1992	1993	1994	1995	1996	1997	1998	1999	2000
West Sumatra	760	1,468	1,681	3,655	2,353	5,387	13,072	9,197	15,607
Riau	1,565	1,534	2,539	2,755	19,430	185	1,909	291	733
Bengkulu	1,990	1,647	3,915	1,009	1,016	2,026	172	66	96
East Java	511	623	643	321	725	2,291	2,814	5,082	1,916
West Kalimantan	6	310	390	406	1,916	2,166	894	1,222	-
North Sulawesi	7,076	2,307	2,719	5,745	2,615	4,904	4,082	5,887	5,887
South Sulawesi	215,565	123,392	38,199	25,542	20,451	18,281	12,240	12,538	5,601
South East Sulawesi	-	-	-	-	-	-	1,887	432	444
Nusa Tenggara Timur	2,652	2,021	10,608	864	3,770	4,007	3,859	2,805	7,391
Maluku	10,229	8,552	40,141	22,772	14,964	21,652	23,076	19,232	9,457
Irian Jaya	19,185	14,232	24,819	25,183	17,410	26,055	22,922	15,165	13,545
East Timor	-	-	-	3,375	-	13,515	24,101	22,777	22,777
Total	259,539	156,086	125,654	91,627	84,650	100,469	111,028	94,694	83,454
Total excluding South Sulawesi	43,974	32,694	87,455	66,085	64,199	82,188	98,788	82,156	77,853

Source: DGSC, Executive Summary, Sea Transport Data, 1999, Chapter 10.

Passenger

It was mentioned earlier that PT PELNI, the public interisland passenger transport company, dramatically increased its share of the market from 40 percent in 1996 to nearly 72 percent in 1999.

However, it appears that despite the addition of 13 new vessels since the mid 1990s, severe overcrowding on PELNI vessels has become commonplace. The overall average passenger load factor on 23 PELNI vessels in 1999 was 128.6 percent (Table 13). One vessel, KM Kerinci had an average passenger load factor of 266 percent, the KM Tidar had an average load factor of 220 percent. Clearly, these average load factors point out severe overloading of the vessels with clear safety and pressing safety concerns.

Table 13. Passenger Load factors on PELNI Vessels, 1999

No.	Vessel	DWT	Capacity (Passengers)	Voyages	Total Passengers	Passenger Factor
1	KM. Kerinci	3400	1596	26	501,627	266.2
2	KM. Kambuna	3400	1596	26	431,296	129.3
3	KM. Rinjani	3434	1733	24	380,810	119.0
4	KM. Umsini	3434	1729	25	339,697	105.1
5	KM. Kelimutu	1450	920	25	472,383	142.0
6	KM. Lawit	1450	920	25	396,255	181.6
7	KM. Tidar	3200	1904	25	841,427	220.0
8	KM. Tatamailau	1400	969	23	143,444	105.2
9	KM. Sirimau	1400	969	26	244,835	114.8
10	KM. Awu	1400	969	25	315,656	140.0
11	KM. Ciremai	3200	1964	26	529,930	155.7
12	KM. Dobonsolo	3200	1964	26	363,187	124.1
13	KM. Leuser	1400	969	13	179,090	120.7
14	KM. Binaiya	1400	969	25	486,404	139.8
15	KM. Bukitraya	1400	969	25	402,835	127.4
16	KM. Tilong Kabila	1450	969	26	310,137	113.5
17	KM. Bukit Siguntang	3375	2003	25	543,105	114.2
18	KM. Lambelu	3375	2003	26	525,656	121.5
19	KM. Sinabung	3375	2003	88	488,545	105.0
20	KM. Kelud	3175	2003	88	541,166	79.3
21	KM. Pangrango	400	500	26	141,920	104.6
22	KM. Sangiang	400	500	56	20,503	14.5
23	KM. Willis	400	500	2	6,702	114.5
Total or average					8,606,610	128.6

Source: DGSC, Executive Summary, Sea Transport Data, 1999, Section 1.6.

In most Indonesian ports, passenger vessels and cargo vessels operate at the same or adjacent berths. As preference is granted to passenger vessels, cargo vessels occupying the berth are required to cease cargo operations and to vacate the berth. Only after the passenger vessel departs, is the cargo vessel permitted to re-enter the berth and to resume cargo operations. In ports with high berth occupancy rates, the mixing of passenger and cargo vessels goes further port delays and increase the total turnaround time for cargo vessels.

To alleviate this problem, several Indonesian ports have established dedicated passenger terminals. Table 14 provides a listing of the characteristics of passenger terminals at 15 Indonesian ports. These ports accommodated 5.1 million passengers in 1998, or 52 percent of the total passenger

traffic at the strategic ports. In January 2001, the port of Tanjung Priok entered into agreement with a private developer to construct a new passenger terminal at East Ancol. The first phase of development calls for the construction of 2 berths totaling 400 meters in length and a terminal building of 15,000 m^2.

Table 14. Passenger Terminals in Indonesia Ports, 2000

Port	Province	Passenger Terminal		1998 Passengers			Annual Capacity
		Length (m)	Depth (m)	Domestic	Foreign	Total	(000's)
Lhok Seumawe	Aceh	288	n.a.	0	0	-	576
Belawan	North Sumatra	215	9.0	102.0	74.0	176.0	430
Tanjung Pinang	Riau	50	1.5-3	702	309	1,011.0	100
Dumai	Riau	36	3.5	224.0	123.0	347.0	72
Bengkalis	Riau	18	2.5	184	0	184.0	36
Panjang	Lampung	10	2.5	n.a.	n.a.	n.a.	20
Muntok	South Sumatra	100	6.0	156	0	156.0	200
Tanjung Priok	DKI Jakarta	600	7.5-12	459.0	46.0	505.0	1,200
Tanjung Emas	Central Java	150	7.0	159.0	4.0	163.0	300
Tanjung Perak	East Java	400	9.0-10.0	672.0	2.0	674.0	800
Benoa	Bali	290	9.0	130.0	4.0	134.0	580
Lembar	West Nusa Tenggara	120	n.a.	31.0	24.0	55.0	240
Banjarmasin	South Kalimantan	70	9	231.0	-	231.0	140
Balikpapan	East Kalimantan	100	6.0	481.0	-	481.0	200
Makassar	South Sulawesi	180	6.0	551.0	1.0	552.0	360
Subtotal		2,627		4,082	587	4,669	5,254
Other strategic ports				3,292.0	1,816.0	5,108.0	
Total strategic ports				7,374.0	2,403.0	9,777.0	

Source: JICA, Final Report, The Study on the Port Development Strategy in the Republic of Indonesia, March 1999, Appendix Volume 2.

Principal routes used for interisland passenger transport in Indonesia are shown in Table 15. Routes are categorized as primary, secondary and tertiary depending on the volume of passenger traffic. The criterion used by Halcrow Fox was based on the passenger seat capacity provided by PT. PELNI. Those routes with a passenger seat capacity of 300,000 or higher were classified as primary routes; those with seat capacity between 100,000 and 300,000 were classified as secondary; and those between 50,000 and 100,000 seats, tertiary.

Of the 39 principal routes, 10 routes were classified as primary, 19 routes as secondary and 10 routes as tertiary.

Table 15. Indonesia: Principal Interisland Passenger Transport System, 2000

Route No.	Origin		Destination	
	Province	Port	Province	Port
Primary routes				
1	DKI Jakarta	Tanjung Priok	East Java	Tanjung Perak
2	DKI Jakarta	Tanjung Priok	Riau	Batam
3	Riau	Batam	North Sumatra	Belawan
4	East Java	Tanjung Perak	South Sulawesi	Makasar
5	South Sulawesi	Makasar	South Sulawesi	Bau-Bau
6	South Sulawesi	Bau-Bau	Maluku	Ambon
7	Maluku	Ambon	Irian Jaya	Sorong
8	Irian Jaya	Sorong	Irian Jaya	Manokwari
9	Irian Jaya	Manokwari	Irian Jaya	Biak
10	Irian Jaya	Biak	Irian Jaya	Jayapura
Secondary routes				
11	DKI Jakarta	Tanjung Priok	North Sumatra	Belawan
12	DKI Jakarta	Tanjung Priok	Riau	Dumai
13	DKI Jakarta	Tanjung Priok	South Sumatra	Tanjung Pandan
14	South Sumatra	Tanjung Pandan	West Kalimantan	Pontianok
15	DKI Jakarta	Tanjung Priok	West Sumatra	Teluk Bayar
16	East Java	Tanjung Perak	Central Kalimantan	Sampit
17	East Java	Tanjung Perak	South Kalimantan	Banjarmasin
18	East Java	Tanjung Perak	Bali	Benoa
19	Bali	Benoa	West Nusa Tenggara	Lembar
20	West Nusa Tenggara	Lembar	East Nusa Tenggara	Tenau
21	South Sulawesi	Makasar	East Kalimantan	Balikpapan
22	East Kalimantan	Balikpapan	Central Sulawesi	Pantoloan
23	Central Sulawesi	Pantoloan	Central Sulawesi	Toli-Toli
24	South Sulawesi	Bau-Bau	North Sulawesi	Bitung
25	North Sulawesi	Bitung	Maluku	Ternate
26	Maluku	Ternate	Irian Jaya	Sorong
27	Irian Jaya	Monokwari	Irian Jaya	Jayapura
28	Irian Jaya	Jayapura	Irian Jaya	Nabire
29	Irian Jaya	Nabire	Irian Jaya	Monokwari
Tertiary routes				
30	West Sumatra	Teluk Bayar	North Sumatra	Gunung Sitoli
31	North Sumatra	Gunung Sitoli	North Sumatra	Sibolga
32	North Sumatra	Sibolga	West Sumatra	Teluk Bayar
33	East Java	Tanjung Perak	West Kalimantan	Pontianok
34	Central Sulawesi	Toli-Toli	East Kalimantan	Tarakan
35	East Kalimantan	Tarakan	East Kalimantan	Nunukan
36	East Nusa Tenggara	Tenau	Maluku	Ambon
37	Maluku	Ambon	Maluku	Namlea
38	Maluku	Namlea	North Sulawesi	Bitung
39	Maluku	Ternate	Maluku	Namlea

Source: Halcrow Fox, Transport Sector Strategy Study for Indonesia, Briefing Note: Sea Transport, 2000.

3. Improving the Health of the Indonesian Shipping Industry

In this chapter we identify goals for improvement of the Indonesian shipping industry and policy and institutional changes to effect those improvements.

GOALS IN REGARD TO THE INDUSTRY

In 2001, the principal problems and limitations of the Indonesian domestic shipping industry are

- Low vessel utilization rates, due mainly to delays at ports,
- Poor environment for the operation of RORO vessels,
- Inadequate capacity to serve passenger transport demand, without operation under overloaded conditions,
- Government-induced market distortions, which tend to act as disincentives to fleet and service expansions by private (commercial) operators, and
- Fleet expansion capital constraints, caused in part by government taxation policy.

Because of the country's archipelago nature, a vital, varied, competitive, and expanding shipping industry is essential for Indonesia's economic and political well being. To ensure that the industry will meet all of the country's needs in the future, the above-listed problems of the industry must be corrected. Actions that need to be taken to correct these problems are identified in the following paragraphs.

REDUCING TIME AT PORT

The most limiting factor as regards the financial health of the domestic shipping industry appears to be the low vessel utilization rate that results from overly long periods at ports. Shipping lines indicate that they spend from two to six days at most ports, and a port stay can extend even beyond six days. From interviews with shipping operators and the Indonesian National Shipowners' Association (INSA), the principal reasons for long delays at ports include:

- Delays in vessel berthing. To a degree that reportedly constitutes a problem, vessel berthing decisions by port administrators are subjective, and influenced by unofficial payments by some operators who wish to avoid delay. At some ports, berthing delay occurs, also, because of inadequate entrance channel water depth, necessitating port entrance only at high tide.

- Vessels are not served continuously while at berth. In ports with regular 24-hour operation, cargo handling proceeds just 18 hours out of 24. Institutionalized work break periods occur between changes of shift and for meals. According to the Secretary General of the Indonesian Cargo Handling Companies Association, the labor work break periods in 24-hour operation ports are 1200-1300 hours, 1600-1800 hours, 2400-0100 hours, and 0600-0800 hours. In ports that have just single-shift operations, labor hours can be extended through payment of overtime to 2000 hours in ports of Irian Jaya and even up to 2400 hours in many one-shift-operation ports.
- With the exception of only a few major ports, facilities are not developed for efficient handling of containers. Handling rates for break-bulk cargo are also not good at many ports.
- Cargo vessels must sometimes leave berth, to permit the docking of passenger vessels. One shipping line indicated that this problem, coupled with low cargo-handling productivity per 24 hours, sometimes means that cargo ships have to move to and from berth three times, before handling operations are finally completed.

The excessive time that cargo vessels must spend at most ports has a serious adverse effect on vessel utilization rates and shipping service profitability. Correction of this low utilization rate must be the first priority of the Indonesian maritime sector. Two principal actions would help considerably to improve vessel utilization:

1. Appropriate facilities must be provided at ports and all port facilities and services must be operated efficiently and to good service standards.

2. Vessels must be served continuously at berth, to minimize average berthing time per vessel, and in so doing maximize the utilization rates of port facilities. This means that a new port labor arrangement is needed.

To develop satisfactory port facilities and establish efficient operations, it is desirable to expand substantially and rapidly the role of the private sector at ports. To ensure that Indonesia derives maximum benefits from an expanded private sector role in ports, the privatization effort must be carried in a manner that utilizes all opportunities for establishing competition within principal ports and among ports. At the same time, there must be assurance that facilities will be developed and operated without prejudice to any users or potential users.

In regard to the port labor arrangement, it is important to note that the direct costs associated with labor employment at ports are not high. That is, there is scope for increasing the level of direct costs (thereby benefiting labor), provided that the indirect costs of labor are significantly reduced or even virtually eliminated. These indirect costs comprise the higher than necessary port investment costs stemming from a 25 percent under utilization of capacity (operating just 18 hours out of 24) and the vessel delay costs associated with standing at berth 33 percent longer than would be necessary were loading/unloading operations to be continuous.

Port system development and the labor arrangement at ports are discussed at greater length in Chapter 4.

Besides port system development and a new labor arrangement at ports, the shipping industry could itself exert increased pressure on government to bring about improvement. There are a number

of reasons why the shipping association should be strengthened, and made more proactive. One of these reasons is the potential for bringing about corrective action at ports. In the "united we stand, divided we fall" tradition, shipping operators need to reach and maintain an agreement among themselves that unofficial payments will not be made to advance their queuing positions at ports. Also, all instances of problems, of whatever nature, at ports should be documented and forwarded to the industry association headquarters, for regular periodic discussion with the government bodies having the authority to take corrective action. Acting as an association, also, the shipping industry could usefully enlist the backing of other stakeholder organizations, such as the Chamber of Commerce and the Cargo Handling Companies Association. There seems now to be too much of a "what can we do?" attitude in the industry. Perhaps, acting individually, shipping lines can do nothing effective. Even collectively, if there is a general belief that nothing can be done, then the prospects for effective action would not be good.

IMPROVING THE CLIMATE FOR RORO OPERATIONS

The cost of a RORO vessel per unit of cargo capacity tends to be higher than the unit of capacity of other types of vessels because of the space occupied by vehicles, including trailers and semi-trailers. When voyage lengths are relatively short, however, as in inter-island service, RORO vessels can spend a much higher proportion of their time at sea in comparison to other vessel types, which tends to diminish the gap between the annual cargo ton-miles among vessel types. Finally, when other advantages of RORO vessels are taken into account, the RORO vessel option looks attractive for inter-island services. In the Philippines, beginning in the mid-1980s, the transition to RORO vessels from other types of vessel proceeded quite far, and occurred rather quickly. The potential advantages of RORO vessel use in the context of Indonesian inter-island service are:

1. Minimization of the cost and time required to provide suitable facilities at ports for the accommodation of cargo and passenger traffic. The costs of loading/unloading facilities are much lower than for other types of vessels, and there are essentially no requirements for cargo handling equipment. No storage sheds are needed.
2. Minimization of the costs of port operation. Except for passenger services at ports (tickets, baggage, amenities, etc.), there is very little need for port labor, at ports accommodating mainly RORO vessels.
3. Minimization of total time of cargo shipment, which means that there is little spoilage of fresh produce. Also, there is generally relatively less cargo theft, in comparison with having to load and unload cargo at ports.
4. Since RORO vessels generally carry passengers, as well as vehicles, they can often operate profitably, even when there are significant trade imbalances in two directions.
5. There are little or no difficulties in the interaction of passenger and cargo traffic.

RORO vessel operation tends to permit the full integration of the economies of nearby islands at least. In Indonesia, the Merak-Bakauhuni (Sunda Strait) ferry is a good example of this. In the 1970s, when the Java Railway operated a conventional vessel between Merak and Panjang, cargo and passenger traffic was very limited. When the RORO ferries began operation at the commencement of

the 1980s, the three vessels employed were usually full, mostly carrying fully laden trucks. Now, in 2001, there are 23 vessels operating multiple voyages each day. In the Philippines, too, the advent of RORO ferry operations between Luzon and Mindoro enabled a swarm of buyers to descend on Mindoro, where very few had gone before, and the economies of the two islands became integrated.

The critical action that needs to be taken to permit RORO vessels to serve Indonesian inter-island trade is the provision of appropriate RORO terminals at ports. A public invitation to the private sector to propose RORO terminal projects at ports might well elicit responses. Currently, Indonesian law discourages investment in ports by shipping companies. It is true that an individual shipping/port terminal operator might well have monopolistic tendencies, and other shipping operators might then be "shut out" of use of the terminal. Some flexibility might usefully be introduced into the law, however, as contractual arrangements between port owners and terminal developer/operators could afford adequate protection for the public. Also, groups of shipping companies, or shipping associations, might usefully be invited to invest in ports, including in RORO terminals at ports.

Currently, tariffs for moving road vehicles aboard RORO vessels are regulated by government. Apparently, rates are sufficiently high to attract private ferry operators, since there are now a number of these. For example, of the 23 ferry vessels now plying the Sunda Strait, only 3 belong to PT. ASDP, and the other 20 are operated by the private sector. PELNI now also operates four RORO vessels, and has introduced price competition on at least one route. It would be desirable, from the standpoint of the public, to deregulate vehicle tariffs and allow operators to charge tariffs that, in their respective views, are appropriate to the markets they are serving.

Stevedoring charges are imposed on cargo vehicles boarding and disembarking from RORO vessels. Such charges ought to be discontinued, to permit the public to derive maximum benefits from RORO accommodation of cargo vehicles.

DEREGULATION OF PASSENGER SERVICES

PT. PELNI has for many years been provided by government with passenger vessels, at no cost to the company, and has performed the preponderance of non-ferry inter-island passenger shipping services. The company is required by government to call at a number of ports at which there is very little traffic, and which therefore would not be included in PELNI routes, were the company to operate on a purely commercial basis. The company must adhere to government-specified economy class fares, but is free to set the levels of second and first class fares. Currently, first class fare levels are approximately 25 percent below air transport fares for the same city pairs. The ratio of first class fare to economy fair is kept in the range of 3 to 4 times. PELNI services generally operate at over capacity, and PELNI finds itself unable to fully meet demand for inter-island services. Despite overloading, PELNI does not quite make a profit (including coverage of vessel depreciation) from passenger services, but might if the company were permitted to design its services strictly on commercial principles. The company's cargo operations (using vessels bought or chartered by PELNI itself) are profitable.

PT ASDP has also been provided with ferry vessels by government over many years; most of the company's vessels are RORO vessels, but it also possesses five fast ferries. As indicated in the preceding section, the company shares the Sunda Strait ferry operation with a number of private

sector ferry operators. This route and a number of others are “commercial”. The company also operates a number of perintis (non-commercial) routes.

It is desirable to “open up” the sea passenger services of Indonesia, to permit the accommodation of total demand, without overloading. The “opening up” process will require that the government discontinue providing PT. PELNI and PT. ASDP with vessels free of charge. It is likely that both of these companies can become commercially viable provided that (a) they are permitted to design their commercial services, entirely free from government influence; and (b) economy passenger fares are deregulated. In regard to the last, these two companies, and private companies as well, will have market constraints that limit the extent to which they can raise economy class passenger fares. That is, first class fares cannot be raised any further relative to air transport fares, and a significant differential between first class and economy class fares must be maintained, because of the considerable difference in service standard.

To the extent that perintis (pioneering) passenger services are still needed in some areas, PELNI and ASDP and private operators should be invited to compete for contracts to provide such services. The bidding and bid-evaluation processes must be transparent, with contracts being awarded to the company requiring the lowest operating subsidy.

AVOIDING DISINCENTIVES TO FLEET EXPANSION

Besides the unsatisfactory port system operating standards, and the RORO vessel and passenger service disincentives discussed above, the Indonesian domestic shipping industry has the following disincentives where fleet expansion is concerned:

- The government has been providing PT. Djakarta Lloyd with cargo vessels. Many of these vessels are suitable, because of their small sizes, for only the inter-island and Singapore feeder service trades. More recently, the government has been providing larger vessels suitable for the intra-Asia trade.
- When fully depreciated vessels are scrapped, the government treats the receipts as profits. Perhaps the government could desist from taxing such revenues, with the proviso that funds obtained would be employed to replace the vessel being scrapped.
- Whereas the government is concerned about the propensity of the industry to charter foreign-flag vessels rather than acquiring new or used vessels that could fly the Indonesian flag, a ten percent import duty is imposed on vessel purchases. There is no similar amount to pay when vessels are chartered.

Shipping operators are disinclined to compete head-to-head with Djakarta Lloyd because the latter has no vessel acquisition or charter costs to cover. Djakarta Lloyd has nine container ships with a rated capacity of 208 twenty-foot equivalent units (TEUs), and these vessels are suitable only for inter-island service and feeder service to Singapore. Another 15 of these vessels are under construction in Indonesian shipyards, although construction has reportedly been interrupted due to lack of funds. It would be a real disincentive to the domestic shipping industry if Djakarta Lloyd were to obtain these additional vessels, and place them in inter-island service.

4. Improving the Port System and Operations

In this chapter we identify targets for improving the Indonesian port system over the next 10 years, identify desirable changes to the legal/regulatory framework, and provide recommendations for accelerating private sector participation within the port sector. We also address several key labor considerations and issues involving ferry operations and provincial ports.

TARGETS FOR THE DECADE

In 2001, the preponderance of Indonesia's general cargo exports and imports moving by sea must past through the port of Singapore. That is, transoceanic shipping services do not make direct calls at Indonesian ports, and feeder shipping services connecting to Singapore are necessary. Not only must connections to transoceanic services be made at Singapore, but even a significant proportion of Indonesia's intra-Asia trade must make shipping service connections at that port.

The JICA Study identifies, however, that the volume of containers accommodated at the port of Tanjung Priok (i.e., around 1.5 million TEUs per annum) is at the threshold level for attracting transoceanic service direct calls. The study concludes that provided only that Tanjung Priok and the nearby port development area of Bojonegara are developed to provide sufficient capacity and high performance standards, the Tanjung Priok/Bojonegara port complex can become Indonesia's international hub container port, and much of the feeder service to Singapore will no longer be necessary. (A portion of Indonesia, namely northeastern Sumatra and West Kalimantan, because of proximity to Singapore, will likely continue to use Singapore as a hub container port.)

The JICA Study estimates that development of Tanjung Priok/Bojonegara, together with Tanjung Perak as a secondary hub, has the potential for reducing Indonesia's feeder shipping costs by 39 percent and transpacific shipping costs by 14 percent, in comparison with continued full reliance on Singapore for making transoceanic shipping service connections.

To accomplish this shipping service improvement target by the end of the current decade, development plans must be made and implementation must begin within the next few years. The Managing Director of IPC II has plans ready for improving the Tanjung Priok port area to adequately accommodate RORO vessels and remove passenger traffic from the cargo accommodation area of the port. He identifies, however, that development of Bojonegara for the accommodation of increasing levels of container traffic is a high priority. This area should be developed not only to provide incremental capacity, but also to create competition within the entire Tanjung Priok/Bojonegara port complex, and thereby better assure that the port operates to world standards for a hub container port. (Currently, the company formed for development of Bojonegara includes a 40 percent ownership share by a foreign company that already has investment interests in both of the Tanjung Priok international container terminals. In interviews held by the assignment team with the shipping industry, the DGSC, the management of IPC II, and others, concern was unanimously

expressed that Indonesia ought not to lose the opportunity for developing competition within the Tanjung Priok/Bojonegara port complex.)

Eventually, another Indonesian international container hub port should be developed, to better serve the eastern regions of Indonesia. In the medium term, however, it is essential that the Tanjung Priok/Bojonegara port complex accommodate sufficient transoceanic container traffic to attract direct calls by transoceanic liner shipping services. In the long term, however, a port of eastern Indonesia could usefully be developed to also attract direct transoceanic shipping services. The JICA Study notes that the Surabaya port of Tajung Perak is too close (less than 400 nautical miles) to Tajung Priok to effectively serve as the second Indonesian international container hub port. The JICA Study identified the port of Bitung (North Sulawesi) might be suitable. The DGSC has this long-term role for the port under consideration, and, within the next few years, a first stage of development (needed, whatever the port's long-term role might be) will be implemented.

The JICA Study noted that there are 49 build-operate-transfer (BOT) projects in the port system development program of the Philippines. Indonesia also has development needs in a large number of its public ports, including in the majority of its principal, or strategic, ports. To ensure that the port system is fully developed to meet the needs of the country, there is probably no option to expanding the role of the private sector at ports. The generation of port system investment funds is an important reason for encouraging private sector participation in port development. It is equally important, however, that port operating standards be raised to good world standards by virtue of private sector involvement. In inviting private sector participation in port system development and operation, the government must grasp every opportunity for generating competition among ports, and within the principal ports.

One way of generating competition among ports would be to allow special ports, with appropriate facilities that otherwise would be generally under utilized, to accommodate third party cargo. Also, the IPCs might themselves become competitive, with each IPC adjusting its own port charges, on the basis of actual costs to be covered by port charge revenue.

LEGAL/REGULATORY BASIS FOR PORT MANAGEMENT REFORM

From JICA Study review of current law regarding the Indonesian ports and shipping sector, and from assignment team interviews, it appears that existing law might require only minor modification to better enable rapid and effective development of the port system. In addition, however, the law is not being strictly adhered to in one or two respects. The following changes are needed, either within current law, or with some modification of the law:

- All traces of IPC regulatory authority need to be removed. Apparently, the law gives IPCs authority to impose charges on special wharves located within IPC ports, with charges being in some way related to special wharf benefits from work undertaken by the IPC, for example, maintenance dredging of the port fairway. In practice, the IPCs have been imposing charges on special ports, as well as special wharves, and little or no attempt has been made to relate such charges to services rendered. Thus, were the IPCs to make initial public offerings of shares (as they are empowered to do), one of the "selling points" would be the derivation of financial benefits from the IPC assumed "taxing" authority.

- IPC management, including the Board of Directors of each IPC, should have full commercial autonomy, certainly extending to preparation and implementation of corporate plans, without interference on the part of government (except that government will be represented on the Board of Directors), and extending also to adjustment of port charge levels, as might from-time-to-time be required to attain profitability. The process for altering port charges currently is complex and time-consuming (2 years or more). What is sometimes not fully recognized by governments is that *all objectives to be gained under economic regulation can be gained also under a deregulated environment, provided only that government monitors the situation in question, and retains (as it always does) the residual power of intervention whenever potential adverse effects on the public welfare are identified*. The monitoring function can be made fairly simple and effective by establishment of a mechanism whereby the ultimate users of facilities and/or services can regularly identify for government the degree of adequacy of such facilities and/or services.

In addition to the foregoing legislative changes, which might be considered essential to effective and rapid development of the port system, the government might take into consideration, also, amending existing law to bring about the following:

- Flexibility in regard to use of special ports to serve the public. Currently, owners of special ports must enter into an agreement with an IPC if their port is to be used for other than own-account cargo throughput. To owners of special ports, the IPC of their region is a regulatory body that imposes charges, probably viewed by port owners as arbitrary. The Managing Director of IPC II has explored the possibility of better utilizing special port facilities currently under utilized. None of the special port owners has expressed any interest in pursuing these possibilities. If, however, the law is changed to permit special port owners to have their port licenses amended, without reference to an IPC, then perhaps a few might apply to become commercial ports. This conversion of special ports to commercial, public ports would be beneficial to the country for three important reasons:
  - — It would reduce, perhaps substantially, the amount of incremental port investment required to effectively accommodate any given level of national general cargo throughput.
  - — It would increase the level of competition among ports, and, in the process, would probably force at least some public ports to become more efficient, in order to retain their respective market shares.
  - — It would, in some locations, reduce the isolation of geographic areas, and in so doing advance the national goal of economic integration.
- Investment in public port facilities by shipping operators. When an individual shipping operator constructs a port or a terminal within a port, there is a tendency for the operator to use the terminal as if it were for own-account shipping. If a government imposes a condition that the terminal must be operated without prejudice to any shipping operators for which the terminal constitutes a suitable facility, then care must be taken that the arrangement is not unfair to the developer; that is, one way or another other shipping operators using the facility

should bear fair shares of the development and operating costs. This change in law could be important for Indonesia, as it could result in the rapid provision of RORO berths at numerous small ports. One way to approach shipping operator investment in ports is to require the terminal to be owned by a newly formed company. Other operators wishing to use the terminal on a regular basis would then buy shares in the company in approximately equal proportion to their use of the terminal compared with total use. An alternative approach is to establish a shipping consortium beforehand to develop and use a port or port terminal.

- Creation of a port authority. A ministry normally does not make a very effective regulatory authority. In Indonesia, the DGSC is quite large, and includes even the Coast Guard, which constitutes a "directorate" under the DGSC. Consideration might be given to streamlining the DGSC, and creating one or two specialized agencies is carry out DGSC functions, while DGSC retains its responsibilities for ensuring that all essential functions are carried out effectively and in a timely manner. If one specialized agency only is to be created, it would be a maritime authority. If two were preferred, they would probably be a small port authority and a much larger maritime safety authority. The JICA Study suggests that the regulatory function of the IPCs grew relative to the specification in the law, because the ministry did not itself carry out its own regulatory role in regard to special ports. A port authority would have responsibility for monitoring the adequacy of port facilities, services and operations, and would take on the safety and environmental functions that are generally ignored by maritime safety authorities (port cleanliness, security review, fire hazards, interaction of passenger and cargo operations, operational water hydrants, emergency rules and preparedness, vessel waste collection, etc.). In Indonesia, a port authority would have an important function in regard to non-commercial ports, namely ensuring that ownership and management arrangements for these ports are satisfactory, and aiding in the full implementation of agreed arrangements. Theoretically, all of these functions could be carried out by the DGSC, but international experience suggests that a more focused and professional regulatory entity might be needed if rapid and effective attainment of regulatory and decentralization objectives is to be realized.

Finally, in regard to modification of law concerning the IPCs, another review of the ports to be assigned to each of the four IPCs might be useful. In such a review the following might be among the questions to be asked:

- Might not a smaller total number of IPC ports help to achieve two important objectives, namely, (a) rapid development of Indonesia's "strategic ports," with early IPC profitability and assurance of sustainable commercial viability; and (b) decentralization, with eventual ownership shift of a large number of public ports, perhaps including all feeder ports?
- Should the IPCs be responsible for those river ports that require perpetual subsidization, in the form of heavy maintenance dredging requirements and costs? If so, what sort of guarantee might be given to the IPCs concerned, if government dredging commitments are to be assured?
- Might it be appropriate for IPC I, which currently serves only three provinces, to take on responsibility for all commercial ports that are likely to be permanently oriented toward

Singapore because of their proximity to that international container hub port? If so, wouldn't the IPC I area extend to Jambi and Pontianak?

ACCELERATION OF PRIVATIZATION AT PORTS

Existing law places no barriers to rapid privatization at ports, and allows for an array of privatization options, ranging from management contracts (with little or no private sector investment) to leasing of existing infrastructure, joint operation, joint venture, and BOT arrangements. At present, there is one joint operation arrangement and one joint venture arrangement at Tanjung Priok, each of which involve one of the two international container terminals at the port. At Tanjung Perak, the international container terminal is also being operated under a joint venture or joint operation arrangement. Now that the government is no longer (as of year 2000) providing budget funds for development of IPC ports, perhaps there will be a greater tendency on the part of government to prefer the leasing and BOT approaches.

The JICA Study suggests that the investment environment for foreign investment in public infrastructure, including ports, is not as good as it might be. A booklet on "Port Development and Operation in Indonesia" identifies interest on the part of the Indonesian Government in attracting private sector investment in ports. The booklet does not give sufficient information, however, and there are no invitation and instructions regarding obtaining further information, for anyone who might be at all interested. The booklet requires elaboration and updating if it is to be effective at all in eliciting expressions of interest. Among other things to be done if port privatization is to be effectively promoted is the translation of all existing laws and regulations that have a bearing on the foreign investment process, as applied to the sea transport sector. These translations should be available on line, for down loading by anyone with a serious interest.

A revised booklet and translations of pertinent law, together with a detailed listing of identified private sector investment opportunities in Indonesian ports might usefully constitute a package of materials to be provided at a national convocation, or workshop, on the subject of development of the Indonesia port system. The nature, scope, objectives, and organization of this workshop are discussed at some length in chapter 7 of this policy paper.

Where feeder ports are concerned, required investment might be obtained most readily from Indonesian investors by:

- Aiming low. Many of these ports could usefully serve RORO vessels primarily, in which case development costs can be minimized.
- Welcoming shipping operator investment. Satisfactory berths for RORO vessels can be provided at relatively low cost, and with relatively brief implementation periods. In the Philippines, once route franchising had been liberalized, RORO operators did not wait for government to construct appropriate berths at Luzon and Mindoro ports, but instead provided their own terminal facilities. The alacrity with which RORO berths were provided on both sides of the strait left something to be desired in terms of both construction standards and operating arrangements. Thus, some control of the process is desirable. The government might issue guidelines on minimum RORO terminal construction standards and multi-

operator working arrangements, at the same time that it publicly invites the domestic shipping industry to itself develop necessary RORO terminals at feeder ports.

- Eliminating undue interference with commercial RORO vessel operation. Tariff regulation on both accommodated road vehicles and passengers could usefully be discontinued, and road vehicle movements ought not to be treated like lift-on-lift-off cargo, requiring cargo-handling services and documentation.

LABOR CONSIDERATIONS

The manner in which labor is currently used at ports is unsatisfactory from three standpoints:

1. Institutionalized labor break periods result in under utilization of facilities and equipment, and in unnecessary extension of average vessel time at berth.

2. Cargo-handlers have limited scope for developing competitiveness through labor training and provision of incentives (long-term, as well as short, such as adoption of "career path" for labor advancement), and other morale-building approaches.

3. Irrational labor requirements for RORO vehicular traffic act as a disincentive to expand such shipping operations.

These problems with the manner of employment of labor at ports might be characterized as the "indirect costs" of labor. Although no effort has been made to quantify these indirect costs, it is likely that they are enormous. For example, the labor problem at the port of Tanjung Priok might, by itself, deter transoceanic vessels from calling at the port. If so, the indirect cost of this effect alone would be worth billions of US dollars per annum.

In addition to indirect costs identified above, labor considerations can act as a disincentive for the private sector to invest in ports. That is, investors will want to determine their own labor needs, free from any influences of labor unions, and investors will want to be in full control of labor training and incentive programs. Any impediment to investor entrance into satisfactory labor arrangements will tend to slow the rate of private sector participation in port development.

Direct labor costs are, on the other hand, relatively modest. Since labor benefits only to a limited extent from the indirect costs incurred from current labor use arrangements, labor unions might react favorably to the offer of significantly higher direct costs (i.e., direct benefits to labor), provided that indirect costs are be substantially lowered, or even eliminated entirely.

Autonomous port corporations might be expected to design and implement appropriate labor "deals" acting on their own behalf. The labor problem is spread across the entire port sector and it might be preferable that the Ministry of Communications forges a comprehensive labor compact for reduction or elimination of indirect costs, and for adjusting labor requirements at individual ports and port terminals, in compliance with the preferences of investors.

The same national workshop, proposed for discussion of acceleration of the pace of privatization at ports, would constitute an appropriate venue for exploration of options for port labor compacts. Further discussion of use of the national workshop for this purpose is provided in chapter 7 of this paper.

FERRY FACILITIES AND OPERATIONS

Responsibility for developing sea ferry services resides with the Director General for Land Transport. Whether or not that is rational, it is desirable that regulatory authority resides with the DGSC, and perhaps in the future with a port authority and a maritime safety authority. As with seaports, the ferry ports need to be considered from the standpoints of national objectives of decentralization and self-sustainability of the sea transport sector (including ferry transport). Principal actions that might be taken in this context are:

- Division of ASDP into two legal entities, namely a regulatory body for inland waterway transport and a commercial sea transport company.
- Severance of the commercial sea transport body from any further government financial support, such as the provision of vessels at no cost to the company.
- Opening up inter-island ferry services to any other qualified operators, such as PELNI and any number of interested private operators.
- Discontinuance of tariff regulation for sea transport passenger and road vehicle accommodation services.
- Placing all maritime ferry port regulatory responsibility in the DGSC, until such time as a port authority might be created.
- Placing all maritime ferry regulatory responsibility in the DGSC, until such time as a maritime safety authority might be created.

Once both PELNI and ASDP (under a different name) are “unleashed”, it is likely and highly desirable that they compete head-to-head on many routes one or the other is currently operating. Although the assignment team did not have the opportunity to “go over the books” of either of these two companies, discussions with company representatives suggest that each company already operates several profitable routes, and the attainment of sustainable commercial viability is likely. Private operators will also be able to compete effectively with the two public sector companies, once the two companies are no longer being heavily subsidized by government.

Both ASDP and PELNI operate several perintis (pioneering) routes. As part of the full commercialization of PELNI and the ASDP sea transport activities, the existing perintis arrangements of both companies should be terminated. The existing arrangements reflect the overall subsidization of the two companies, and other operators had difficulty competing for the services. Both public companies should subsequently be permitted, and even encouraged, to compete for perintis contracts, as negative concession agreements.

NON-COMMERCIAL PORTS

The so-called “non-commercial ports” are all public ports that are not IPC ports. For the most part, IPC ports are commercially viable ports at present, or have the potential for becoming commercially viable within the short-to-medium term. It is not clear, however, all non-IPC ports are devoid of potential for becoming commercially viable in the medium term. Perhaps a change in the nomenclature would be desirable. All ports in the category are non-IPC ports, and might be called so.

Alternatively, if all of these ports are to devolve to provincial government ownership and responsibility, then the category might be called “provincial ports” or “local ports”.

The devolution process might be carried out by the Ministry of Communications, but a preferable option, if there are other good reasons for creating it, would be to rely on a national ports authority to ensure that devolution is carried out effectively, and without significant adverse effects on the integrity of the national port system. The port authority would also carry out all port regulatory functions.

Local governments (provincial and city) probably do not now have personnel who are knowledgeable about ports. If the integrity of the port system, as a system, is to be maintained as devolution proceeds, then it is probably advisable (and maybe essential) for the national government to require that a specified minimum number of local officials have some understanding of the national port system, and the port development, management and operation processes, before ports are actually handed over. A brief “port ownership and management” training program might be provided by the national government. The national government might require that, say, three officials of a local government successfully past through the training program, before a port can be “handed over” to the local government. All those local officials passing through the training course successfully might, by virtue of that attainment, become members of an Association of Local Port Officials (ALPO). The training course would not qualify officials to actually operate a port, but would help them to understand the current and possible future role of the port, and identify for them their options for development, management, and operation of the port.

5. Role of Cargo Service Users

This chapter identifies objectives and goals of organizations of port and shipping sector users and recommends steps for enhancing the effectiveness of such organizations.

ORGANIZING FOR COMMON INTERESTS

It is a commonplace that organization for common interests is desirable. In Indonesia, there is the Chamber of Commerce and associations of exporters and importers. Service associations related to shipping include the ship-owners, freight forwarders, shipping agents, cargo handlers, and shipbuilders associations, and various narrowly based and broadly based labor unions.

The objectives of the association might not be achieved, however, unless the following additional steps beyond merely organizing are also taken:

- Management must prepare for discussion among the members, and eventual finalization, a document that sets forth both the objectives of the organization and the strategy for achieving those objectives.
- Good communications amongst all members must be established. In the Internet age, this means that members should be linked by e-mail. Part of the strategy for achieving objectives must be to monitor whatever situation the organization is concerned with. In monitoring, anecdotal evidence is not usually sufficient, and problems must be documented (date, details and persons associated with each instance of pertinent occurrence). E-mail lends itself to gathering all this monitoring data at a single location, for preparation of summaries by time period.
- Association self-analysis must be carried out to identify any “weak links” there might be in the organization, and to plan for strengthening such weak links. Often the weak links are branches of the association in less-developed areas of a country.
- Allies must be sought out in regard to each matter of concern, and regular communication, including periodic meetings, must be established for exchanges of information, and development of common approaches to deal effectively with common, or related, problems. Allies will often also have organized, so officials of the two or more allied associations can establish regular working relationships.
- Opponents on individual issues must be identified, and one or more meetings arranged. The purpose of these meetings is to attempt to precisely define the extent of disagreement. When this is not done, the scope of disagreement is often exaggerated, and chances for reaching some sort of compromise agreement are then not good. Not infrequently, “opponents” find out in such exploratory meetings that they have little disagreement on objectives, but rather only with regard to strategy for attaining objectives. Under such circumstances, seemingly

large differences in view can "melt away" quickly, and final agreement requires only a little "give" by all parties.

- Decision-makers who have the authority to significantly affect the matters of concern to an association must be identified and entreated to set up regular meetings with the association and its allies. Once a good working relationship has been established, the need for meetings might be reduced, as decision-maker organizations take action on the basis of monitoring information provided to them by associations, using e-mail.

INSTITUTIONAL MECHANISMS IN THE CONTEXT OF THE INDONESIAN SEA TRANSPORT SECTOR

In Indonesia, there are a number of private sector associations that are concerned that the port system of Indonesia is inadequate and shipping costs are high largely due to inefficiency, but also due to corruption at some ports. These transport inadequacies translate into higher than necessary delivered prices for Indonesian exports, thereby limiting the potential for exporters to gain larger shares of the world market for a variety of commodities. The private sector associations that are concerned about restraint of export trade growth include, but are not necessarily limited to the following:

- The Chamber of Commerce
- Indonesian Exporter Association
- Importers Association of Indonesia
- Indonesia Shipping Agent Association
- Freight Forwarders Association
- Indonesian National Shipowners' Association
- Indonesian Cargo Handling Companies Association
- Port labor unions

From discussions the assignment team had with the DGSC, the Managing Director with IPC II, and the Ministry of Industry and Trade, it appears that all of these offices are strongly supportive of upgrading the port system and inter-island shipping services, and of bringing about closer cooperation between the trade and communications ministries. The assignment team did not have an opportunity to meet with the Ministry of Finance, but that Ministry has overseen the gradual reduction of budgetary support for the four port corporations, and therefore might be presumed to favor the IPCs attaining sustainable commercial viability.

To bring about the port system changes that all of these interested parties seem to favor, the following two steps must be taken:

1. A consultative process among all of these organizations must be initiated, perhaps at a national port system development workshop, held in part to reach agreement on port system development objectives and strategies.

2. Agreement must be reached on establishing a monitoring mechanism, to assess progress toward agreed objectives and strategies, and to continue beyond an implementation period to identify any problems, as they might continue to arise from time-to-time in the medium and long term.

The essential organizational elements of a Port System Development Consultative Process are as follows:

- A small secretariat, two individuals might be sufficient, ideally located within the national port authority. Should no port authority be created, the secretariat might be located within a principal user association secretariat, such as the exporters association.
- Designated representatives of each participating organization. Preferably, each organization would designate several individuals to represent different areas of the country. This will allow individuals from around the country to feel they are integral parts of the Consultative Process, rather than only integral parts of their own national associations. Where local government is concerned, it is desirable that both an association of provincial governments be formed and represented in the Process, but also that each province designate a government officer who shall participate in the Process as part of his or her official duties.
- Each designated representative should have his or her own network of individuals who provide information inputs to the process and/or make use of collected information. Ideally, these networks would also communicate principally by use of e-mail.

The Consultative Process should not only monitor implementation of the resolutions of the national workshop, but should also perform as the day-to-day monitoring function that should "naturally" be in place, but apparently is not. An example might make this point clearer:

There is a problem at a number of ports lacking special passenger berths and terminals, wherein the entrance of passenger vessels to the port forces the discontinuation of cargo-handling operations for a cargo vessel that must depart a berth in order that the passenger vessel can dock. From discussions held by the assignment team, there seems to be a wide range of views about how serious this problem is for cargo service operators. Such a range of views can only exist because no one has taken the trouble to document the instances of interrupted loading/unloading activities. Port officials, shipping companies, and cargo-handling companies should all be recording these instances, and submitting the information to those who would make use of it. The DGSC, for example, should want to receive this information as input to prioritizing port system investments.

Suppose, continuing with this same example, the shipowners association (INSA) knows only that there are continuing problems of interruption of cargo-handling activities due to passenger vessel priority berthing at a number of ports. That anecdotal information does not permit either INSA or the DGSC to grasp the degree of importance of the problem. If, on the other hand, INSA members are taking the trouble to record details of these instances and compute what they mean in terms of value of lost time, then the INSA representative might be able to inform the DGSC that, say, "during April at the port of Pontianak our members had to de-berth a combined total of fourteen times because of passenger vessel berthing priority, losing an average of 4.5 hours in loading/unloading, and costing them an estimated Rp 1,150 million". If INSA members are not now providing their association secretariat with documented and quantified information regarding problems encountered, then they are essentially "tying the hands" of their association to take action on their behalf.

The Consultative Process, if fully implemented, will not only convey to association secretariats documented information on problems, but will permit the recipients of this information to also deal by e-mail with those in authority to take corrective action.

Even where seemingly intractable problems of corruption exist, will these be immune to a process of detailed documentation of such problems? Problems of all sorts will not immediately disappear from the Indonesian sea transport sector with implementation of the Consultative Process, but full information about problems, and wide dissemination of the information to stakeholders, constitutes the first step toward problem correction. A current advertisement on American television includes the line, "If you're going to make a difference, you first must believe that you can." All stakeholders in the Indonesian sea transport sector can contribute to "making a difference." The essential first step to enable them to do this most effectively is the establishment of a mechanism whereby all concerned stakeholders can work together to bring about desired results.

6. Improving the Balance of Trade in Services

In this chapter we address the issue related to improving the balance of trade in the shipping sector, including the potential to expand the Indonesian-flag fleet, development of the ship repair industry and the promotion of the shipbuilding industry.

EXPANDING THE INDONESIAN-FLAG FLEET

The Government of Indonesia is concerned that the country has a large annual foreign exchange outflow representing net payments for shipping services. Foreign shipping lines accommodate over 95 percent of Indonesia's export-import trade moving by sea. Indonesian shipping lines accommodate significant portions of the intra-Asia trade and the feeder movements to Singapore, but accommodate very little transoceanic trade. In an effort to increase the proportion of this traffic accommodated by Indonesian vessels, the government is acquiring containerships, which it gives free of charge to the government-owned shipping company, Djakarta Lloyd. Two vessels of 1,644-TEU capacity have been delivered to the company in recent months, and have been placed into service on routes to China and Australia. The government has also scheduled delivery in 2003 of three vessels of 3,000-TEU capacity. Even though these vessels will help to increase Indonesia's foreign exchange earnings from shipping services, the acquisition of the vessels entails sizable foreign exchange outflows, so the net foreign exchange effect of this approach is unclear.

The government recognizes that Indonesia cannot quickly make significant shipping service gains where the country's export-import traffic is concerned. The government is more concerned, however, that foreign-flag vessels accommodate nearly half of Indonesia's inter-island cargo. From discussions that the assignment team had with both domestic and foreign shipping lines, it appears that the foreign-flag vessels used for inter-island services are vessels chartered by Indonesian shipping lines. That is, Indonesian shipping lines are being paid to perform all, or nearly all, inter-island shipping services. The foreign shipping line interviewed by the assignment team indicated that it does not perform any cabotage services, not even the repositioning of its own empty containers between Indonesian ports.

Indonesians were given freedom to charter foreign-flag vessels, in 1988, as part of domestic shipping deregulation. The charter option was made more attractive by government, for more than a decade, as imports of vessels under 6,000 GRT was not permitted, so local purchase of vessels became the only alternative to chartering. Even in 2001, the government imposes a ten percent import duty on purchased vessels imported into Indonesia, whereas no such duty need be paid on chartered foreign-flag vessels.

As discussed in other chapters of this paper, Indonesia has potential for considerably raising the utilization rates of its inter-island vessels, through development of the port system, and upgrading the standards of port performance. Among other benefits of doing that would be the slow growth of fleet capacity requirements, relative to the growth of cargo traffic. At some point, however, there will be

diminishing utilization rate improvement, and the growth of capacity requirements will, once again, approach the rate of cargo traffic growth. At that time, additional capacity to meet growing demand might be provided through any combination of the following:

- Permitting foreign shipping lines to provide cabotage services, perhaps limited to repositioning their own containers, empty or loaded.
- Expanded use of chartered foreign-flag vessels by Indonesian shipping lines.
- Acquisition, by Indonesian shipping lines, of increased numbers of second-hand vessels on the world market.
- Acquisition by Indonesian shipping lines of new foreign-built vessels.
- Acquisition by Indonesian shipping lines of new vessels constructed in Indonesian shipyards.

All of these options entail substantial foreign exchange outflows, except that such outflows might be reduced once the Indonesian shipbuilding industry is more developed than it is at present. Currently, 50-55 percent of the cost of a new vessel built in Indonesia represents foreign exchange costs. The total cost of building a vessel in Indonesia is around two times of costs of obtaining an equivalent new vessel from China, and is two times or more the cost of acquiring comparable vessels on the world second-hand ships market. Thus, in terms of foreign exchange only there might be little difference between buying new vessels in Indonesia and buying new vessels (in the most cost competitive markets) outside Indonesia, or buying second-hand vessels on the world market.

Vessel charter costs might be roughly comparable to some purchase options, excluding a ten percent import duty on vessels purchased from abroad. One shipping line indicated that the ten percent duty was sufficient to discourage the external purchase option. It appears that the Indonesian Government would like to encourage vessel purchase and discourage foreign-flag vessel chartering. If so, it would certainly make sense to eliminate the ten percent duty on importation of vessels, and, in so doing, "level the playing field" between the purchase and charter options.

Another tax adjustment that could help to increase the number of purchases concerns treatment of sales of vessels for scrap. Usually vessels sold for scrap are fully depreciated, and shown to be so in the company accounts. A sale of a vessel indicated to be valueless is treated as a profit for tax purposes. Shipping operators argue that funds received ought to be available for vessel replacement, and suggest that the government eliminate the tax when funds received are applied to acquisition of another vessel.

Except for these tax change actions, the Indonesian Government probably should refrain from intervening in the marketplace to favor one capacity expansion option vis-à-vis the others. If, however, the government views intervention as necessary to correct a "problem", then the problem at least ought to be assessed, and alternative interventions evaluated. At present, there has been no determination as to whether vessel purchases or vessel charters result in the greater outflow of foreign exchange. Very likely, neither option has an important relative advantage vis-à-vis the other where magnitude of foreign exchange outflow is concerned.

Government Regulation No. 82 (1999) seeks to force the shipping agent industry to purchase vessels of 5,000 GRT or larger. Unless agents own such a vessel as of October 5th, 2001, the agents will no longer be permitted to offer agent services to foreign shipping lines. Since 1993, foreign-flag

lines have been permitted to choose their own agents in Indonesia. The agents indicate that only 14 or 15 of their association's members will be able to qualify, after October, and foreign lines will then have to choose their agents from among the few who will remain.

There are four serious shortcomings of Government Regulation No. 82 (1999):

1. It is not clear that the desired result is desirable. Certainly Indonesia does not need a sudden inflow of 400 large vessels placed into inter-island service. Nor does the country need the sudden outflow of $4,000 million for acquisition of 400 fairly large (by inter-island standards) vessels. For the most part, these vessels would not replace chartered vessels, since most of the agents do not now charter any vessels of such size.

2. But, why worry, because the desired result is unlikely to occur. Few agents can afford to acquire a 5,000 GRT vessel.

3. The sea transport sector will be worse off for having its shipping agent service industry decimated.

4. Perhaps, worst of all, Government Regulation No. 82 (1999) represents the reintroduction of regulation of the sea transport sector.

Finally, there was another way. The preceding chapter discusses the consultative process in regard to port system development. No matter what the problem at hand, however, a consultative approach can do wonders.

First of all, the government ought not to have presumed that the private sector had an entirely different objective regarding foreign exchange than did the government, and so would need to be forced to comply with the government view. Actually, had the government given the consultative approach a good try, it is likely that the government would have learned that the shipping industry, the shipping agents, shippers, freight forwarders, and other sea transport stakeholders would have had a high degree of unanimity in regard to an objective expressed as: "minimization through time of the net foreign exchange outflow from payment for shipping services".

Having reached agreement on the objective, the next step would have been to examine the existing situation carefully, including all government policies that have contributed to the situation. Shipping lines, one-by-one, could have explained the considerations that led to their choosing to charter or choosing to purchase when it became desirable to expand or replace fleet capacity. Among other things, the effect of the ten percent import duty on dampening enthusiasm for making vessel purchases would have been identified. ***Except for the effect of this tax upon choice among fleet capacity enhancement options, the decisions of individual shipping companies on whether to charter or purchase probably tend to minimize the foreign exchange costs of the national inter-island shipping fleet.*** That is, all shipping lines want to minimize fleet cost, and, during times when the rupiah is weak, minimization of fleet costs also means minimization of foreign exchange costs.

The outcome of this hypothetical consultative process might well have been that Indonesia can do little in the short run to reduce the foreign exchange burden of the country, but that in the longer run, substantial development of the shipbuilding, ship repair, and related industries could bring about a significant reduction in foreign exchange outflows for vessel acquisition. This possibility is further discussed in the final section of this chapter.

SHIP REPAIR INDUSTRY DEVELOPMENT

The international services account should be viewed in the same way as the commodities account. It is desirable to have a positive balance to give good assurance that there will not be constraints on the import of goods and services. It is not important, and certainly is not realistic, that there be a positive balance for each and every commodity and service. Thus, if Indonesia has a sizable deficit in the net payments for shipping services, perhaps there are other services that can generate sizable surpluses for the country. In this regard, the provision of ship repair services appears to offer a large potential for generation of large foreign exchange inflows. Consider the following:

- Indonesia lies on some of the world's principal shipping routes. If Tanjung Priok/Bojonegara can be developed into an international hub container port, then some of the transoceanic vessels now calling at Singapore, would sail through Indonesia instead.
- As an archipelago, Indonesia has numerous sites that are suitable for the development of ship repair facilities.
- "Spill over" vessel repair demand began occurring at Singapore more than a decade ago. Singaporeans and others than began investing in ship repair capacity in the Philippines to accommodate the spillover demand. Indonesia can at any time enter the fray to gain a share of this large repair service market.
- Indonesia has more than 220 million people, and a fairly good standard of education. Skills are learned well, and there are large numbers of skilled laborers available for ship repair facility employment.

Officers of the Shipbuilding and Offshore Industries Association indicate that the association is aware of the overflow demand for ship repair services at Singapore, and are planning to take advantage of this demand. As in the case of ports, the ship repair industry can grow quite rapidly if Indonesia will invite in foreign investment and expertise to construct and operate "cutting edge" facilities.

SHIPBUILDING

At various points in this paper, the Indonesian Government is being urged to get out of the ship-giving business. At this point in the discussion, however, we urge the Indonesian to have one last "fling" of ship giving. There are at the moment in several Indonesian shipyards a total of 15 vessels that are partly constructed, and on which construction has been halted due (reportedly) to lack of funds for completing the original 24-ship project (nine ships have already been delivered to Djakarta Lloyd). It would give the shipyard industry a "shot in the arm", if these vessels were simply given to the shipyards wherein they currently reside.

The shipyards could then auction off the vessels to the Indonesian industry (including Djakarta Lloyd, if it were interested in bidding).

The assignment team understands that another JICA-financed study is being planned, and that this study would extend to consideration of development of the shipbuilding industry. (The team has not had an opportunity to review the terms of reference for the upcoming study, and have therefore only a vague notion of the study scope and objectives.)

Either within the upcoming study or separately, consideration might be given to a possible shift of responsibility for shipbuilding industry development from the Ministry of Industry and Trade to the Ministry of Communications. The latter ministry has much more at stake in regard to the industry, and also is the appropriate body to take on regulatory duties in regard to shipyards, their services, and the seaworthiness of their products.

Just as in the case of ports, private sector investment, and preferably foreign private sector investment is needed if the industry is to expand rapidly, and operate to a good performance standard.

7. Next Steps

This final chapter presents a plan for evoking desirable policy, legal, and regulatory changes in the shipping and port sector and specific actions for implementing that plan.

INDONESIAN GOVERNMENT

Policy, Legal, and Regulatory Change

The Ministry of Communications has begun a review of transport-related law and regulations. This review is timely, and usefully might be completed during 2001. The assignment team cannot anticipate the results of this government review, but believes that the following changes, at least, might be desirable:

- Rather than attempt to mandate an expansion of ownership of vessels of 5,000 GRT and larger, the government should work with the shipping industry to determine, first of all, the relative desirability of chartering and purchasing vessels for the inter-island trade, and then to adopt a mutually agreeable strategy to bring about any desirable change. Should it be agreed that vessel ownership should be expanded, the government might "level the playing field" by canceling the ten percent import duty that currently works to deter vessel purchases from abroad. In line with this altered approach to government intervention, Government Regulation No. 82 (1999) should be reconsidered. If the regulation is to continue in effect, damage to the shipping agent industry might be avoided by establishing a separate license for agents, and exempting licensed agents from the vessel ownership specifications.
- Government might withdraw from the vessel gift giving business, except that the 15 containerships of 208-TEU nominal capacity currently sitting in partially constructed state in Indonesian shipyards might usefully be given to those shipyards to auction off and complete. The corollary of this policy change is that the three public shipping lines or ferry operators, Djakarta Lloyd, PT. PELNI, and PT. ASDP might desirably be charged with becoming fully commercial companies. Where PT. ASDP is concerned, this commercial objective might require severing the connection between sea transport (largely profitable already) and inland waterway transport.
- Amending the law and government regulations creating the Indonesian Port Corporations I, II, III, and IV. These corporations ought to have no regulatory authority at all, yet should have full authority in regard to their own ports and commercial decisions of all sorts.
- Amending the law and government regulations to permit greater scope for private sector involvement in development and operation of the public port system. These amendments might usefully include an elaboration of the rules and processes for inviting private

investment in, and management and operation of, public infrastructure, including ports. Also, specific revisions seem warranted to remove constraints, or at least to introduce flexibility, in regard to use of special ports for public purposes, and to permit shipping lines to invest in port facilities, extending even to the development of whole ports (such as RORO ferry ports).

- Tariff regulation of transport of road vehicles and passengers might desirably be discontinued.

Institutional Change

Ministries do not normally themselves act in a regulatory capacity, but rather have created under them specialized, professional regulatory bodies. The ministries can then themselves be streamlined, retaining primarily functions of policy and legislative review, strategic planning, sector monitoring, statistical and reporting functions, and liaisons with other sectors and stakeholder associations. In the case of the Indonesian sea transport sector, the principal institutional changes that might usefully be taken under consideration are:

- Creation of a port authority.
- Creation, also, of a maritime safety authority.
- Shifting of government oversight responsibility for the shipyard industry (i.e., repair services and shipbuilding) from the Ministry of Industry and Trade to the Ministry of Communications.

The recommendation of this policy paper in regard to all of these possible institutional changes can only be that they be given consideration. The "next steps", then, would be, in each case, to design and carry out a study effort to thoroughly evaluate the institutional change proposals.

In addition to the principal proposals for institutional change listed above, it might be useful to create an association of provincial and city port officials. The purpose of the association would be to ensure that each province or city, that is scheduled to receive from the national government the ownership and responsibility for one or more public port, would have, in advance of port devolution, a few officials who had received brief training on how to manage and develop a port, and on the role of feeder ports in the overall public port system of Indonesia.

SEA TRANSPORT SECTOR

To bring about desirable change of the sea transport sector quickly and effectively, the stakeholders must become more thoroughly involved than they now are in monitoring the sector, and in decisions on strategy and actions for sector improvement. The following paragraphs identify and discuss several "next moves" designed to more fully involve stakeholders in the development of the Indonesian port system.

National Port System Development Workshop

The workshop would be designed to accomplish five principal objectives:

1. Initiate a national consultative process in regard to development and operation of the Indonesian sea transport sector, involving concerned government officials at the national and local levels and representatives of the entire spectrum of stakeholders, including, but not necessarily limited to, shippers and importers, port terminal operators, cargo-handlers (stevedores and arrastre), domestic shipping lines, foreign shipping lines, ship repair service industry, port service companies (tug operation, etc.), travel agents, freight forwarders, shipping agents, port labor unions, seafarer unions, and truckers.

2. Reach agreement on a scheme for port system development and operation, including the optimal extent of private sector involvement in port development, operation, and management, and determine a desirable and realistic approach and time frame for bringing about optimal private sector involvement in at least the principal ports of Indonesia.

3. Reach agreement on the outlines for a national compact between Indonesian port labor, cargo-handling companies, terminal operators and the Ministry of Communications, wherein port labor would gain in terms of pay and benefits, while the manner of employing labor would be altered to largely or wholly eliminate current indirect costs, deriving from the manner in which labor is used, and the resultant under utilization of port facilities.

4. Reach agreement on the meaning for the port system of the national political decentralization goal, and agree on a scheme for achieving decentralization while maintaining the integrity of the system.

5. Decide on the desirability of perpetuating the consultative process in regard to port system development and operation, and reach agreement on the outlines for an optimal scheme for effectively continuing the process.

The workshop will be held over a period of four days, and will be divided into six sessions. The opening session on the morning of the first day and the closing session on the afternoon of the fourth day will be relatively brief. The four intermediate sessions will each have a theme and will be related to workshop objectives (2) through (5), as these are identified above. Each of these four intermediate sessions will begin with presentations by Indonesian and/or international experts on the subject under discussion, and will continue with presentations by associations or other groups of stakeholders on how their members view the matter and what their respective concerns are. Following the presentations, there will be some time for questions and comments in the plenary. The plenary will then divide into discussion groups of no more than 20-25 persons each for more thorough discussion of the matters in question. In advance of these discussions, the organizers of the workshop and the presenters in each session will reach agreement on the questions to be taken into consideration by discussion groups. All groups will choose a chairperson and a rapporteur, and will consider the same questions. Following each discussion period (one for each of four sessions), the rapporteurs of the discussion groups will read to the plenary the conclusions of their respective group. Following a plenary discussion period, the workshop organizers will collect the conclusions of the discussion groups from the rapporteurs, and will overnight produce a synthesis to be presented to the plenary as the first item of business the following morning. This won't be possible in regard to the conclusions

of the fifth session (held on the same day as the closing session), so the synthesis will need to be prepared during an extended lunch break. Following afternoon agreement by the plenary on the conclusions of the fifth session, the attendees will be presented by the workshop organizers with a proposed set of resolutions (calling for specific actions by one party or another), corresponding to the workshop conclusions from sessions two through five. The resolutions will be adopted as read or as amended, on the basis of plenary discussion.

Following the close of the workshop, the organizers will edit, but not otherwise alter, the workshop's conclusions and resolutions. Most attendees should be able to obtain a copy of the finalized conclusions and resolutions before traveling back to their respective home areas. Within a few days after the workshop, the workshop organizers will assist the Ministry of Communications in wide distribution of the workshop's conclusions and resolutions to stakeholders and national government offices. Draft terms of reference for the National Port System Development Workshop are presented in Appendix E.

Study Tour of Regional Ports

As part of the preparations for the workshop, several stakeholders and government officials could usefully make a study tour to several other countries of the region to ascertain the strategies they are pursuing to upgrade their respective port systems. Tentatively, the tour might take two to three weeks, and visit four countries, namely Japan, the Philippines, Thailand and India. Following the tour, two or three members would prepare the tour report, which would then be presented at the national workshop. Draft terms of reference for the study tour are presented in Appendix F.

Institutionalizing Consultative Process

Provided only that attendees at the workshop agree that it would be desirable to institutionalize the consultative process initiated by the workshop, a small, probably two-person, secretariat would need to be established as early as possible. Initially, one or both of the individuals manning the secretariat would be consultants, financed probably under a foreign aid grant. This same grant would then be used to ensure that e-mail linkages were quickly provided to all designated members of the Port System Development Consultative Process. The secretariat would work in the early months of its existence to ensure Consultative Process members were not only connected, but were also actively engaged in development and use of the Process.

PORT CORPORATION SUPPORT

The four IPCs are likely to require some amount of technical assistance to incorporate workshop resolutions into corporate plans covering, say, a period of seven years. Technical assistance for this purpose would first be provided to a single IPC, until such time as the corporate plan had been finalized and plan implementation had effectively gotten underway.

LABOR COMPACT

Also, immediately following the workshop, whatever decision the workshop has reached regarding the desirability, nature, and outline of a national compact between government, port labor and the cargo-handling industry should be pursued. The compact must be agreed upon nationally through the holding of a series of working meetings. Finally, when a finalized compact document is ready for signing, there should be a well publicized “signing” meeting, at which high officials of the national government attend, together with sea transport sector labor leaders.

INSTITUTIONAL ANALYSIS AND DEVELOPMENT

Should the national workshop have concluded that it is worthwhile to give consideration to proposed institutional changes considered by the workshop, the proposals would then require study. It might be that an already scheduled JICA study will provide some of the required investigation and analysis. That study might well need to be supplemented by other study efforts, however, since the terms of reference for the JICA study will have been prepared in advance of the workshop, and therefore without reference to workshop findings and resolutions.

Appendix A

STATEMENT OF WORK: DOMESTIC TRADE AND INTER-ISLAND SHIPPING IN INDONESIA

STATEMENT OF WORK

POLICY PAPER: DOMESTIC TRADE AND INTER-ISLAND SHIPPING IN INDONESIA

A. Objective

This paper will provide a brief overview of the various issues and challenges confronting inter-island shipping in Indonesia. The primary focus of the paper will be how to facilitate domestic trade through improvements in inter-island shipping policy. The document will be used as one of a number of supporting papers for the domestic trade section of the Trade Policy Strategy that will be produced by MoIT in the first half of 2001 (Please note matters relating to Port management and efficiency will be considered in another short term consultancy project).

B. Background

The provision of efficient and competitive inter-island shipping services is an essential element to support the growth of domestic trade in Indonesia. Over the years, numerous regulations and regulatory systems initially designed to protect the public interest and safety have resulted in an inter-island shipping sector that is not responsive to user's and shipper demand, protects inefficient and non-innovative shipping companies, and increases the cost of inter-island transport.

The policy paper and its supporting analyses will review the present regulatory system governing inter-island shipping and its impact on the performance of the sector. Particular attention will be placed on identification of policies and reforms that could materially improve the level, quality and quantity of service provided by inter-island shipping companies.

C. Scope of Work/Tasks

The Inter-island Shipping Policy Specialist and the Transport Economist will complete the following tasks:

1. Assess the economic importance of an efficient inter-island shipping industry in an archipelago country such as Indonesia. This will include
    a. An analysis of trends in the volume of cargo shipped on major inter-island routes.
    b. An estimate of inter-island transport costs as a percentage of the total delivered price of major domestic cargoes.
    c. If data permits, quantitative analyses of the impact of domestic trade deregulation measures (in particular Law 18/1007) upon inter-island shipping.
    d. A qualitative assessment of the impact of the protection of the local ship building industry.

e. A review of the role that foreign shipping has played in the sector and the impact (if any) upon the services deficit in the national accounts

2. Identify and review the various law and institutions governing inter-island shipping. The roles and responsibilities of national, provincial and local institutions will be identified and evaluated.

3. Assess the structure and competitiveness of the inter-island shipping sector in Indonesia and along major routes. Factors inhibiting competition will be identified and discussed. Entry and exit from the industry will be reviewed and barriers to entry identified.

4. Identify the service characteristics of the inter-island shipping industry and assess its performance including:
    a. Size, type and number of vessels used
    b. Routes served and quality and frequency of service
    c. Ability to handle special cargoes
    d. Shipping rates

5. Identify weaknesses and problems, as well as strengths, of the sector

6. Assess the likely impact of decentralization and the central government's new emphasis on developing the country's maritime resources on the future development of inter-island shipping sector.

7. Provide a brief set of policy recommendations that will help to facilitate domestic trade flows via inter-island shipping.

The Interisland Shipping Policy Specialist and the Transport Economist will work as a team under the technical supervision of the Domestic Trade Advisor of the PEG Project, and will report to USAID's Cognizant Technical Officer (CTO) for the PEG contract. It is anticipated that the Interisland Shipping Policy Specialist will focus primarily on the institutional assessment and policy analysis while the transport economist will focus primary on the structure and performance of the inter-island shipping sector.

D. Reports and Deliverables.

At the end of their field assignment, the Interisland Shipping Policy Specialist and the Transport Economist will provide a briefing of their preliminary findings to the Domestic Trade Advisor of the PEG Project and USAID's Cognizant Technical Officer (CTO) for the PEG contract.

Within 30 days of the completion of fieldwork, a draft policy paper will be submitted.
As noted above, this paper will be one of a number of supporting papers for the trade policy strategy.

Appendix B

MATERIALS REVIEWED

MATERIALS REVIEWED

Annual Reports, Pelindos I, II and IV, 1999.

Annual Report Pelindo III, 1998

BPS, *Gross Regional Domestic Product of Provinces in Indonesia by Industrial Origin, 1996-1999*, August 2000.

DGSC, *Executive Summary, Sea Transport Data, 1999.*

Direktorat Lalu Lintas Angkutan Laut, Direktorat Jengeral Perhubungan Laut, *Himpunan Data Angkutan Laut, Tahun 1999*, Jakarta, Agustus 2000.

Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, *Rekapitulasi Operasional Pelabuhan*, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Halcrow Fox, *Transport Secor Strategy Study for Indonesia*, ADB Loan 1089-INO, Briefing Note Sea Transport, submitted to Ministry of Communications, Directorate General of Land Communication

Indonesia Shipping Gazette, January 15, 2001

JICA, *Final Report, The Study on the Port Development Strategy in the Republic of Indonesia*, submitted to Ministry of Communications, Directorate General of Sea Communications (DGSC), March 1999. Summary volume, Main report, Volumes 1 and 2, and Appendix Volume 1 and 2.

The World Bank, Poverty Reduction and Economic Management Unit, East Asia and Pacific Region, *Indonesia: Accelerating Recovery in Uncertain Times,* Report No. 20991-IND, October 13, 2000.

Appendix C

PERSONS CONTACTED

Company	Name	Title
United States Agency for International Development	Desaix Terry Myers	Director USAID Mission to Indonesia
United States Agency for International Development	Quan X. Dinh, MBA, Ph.D	Senior Economic Advisor
Embassy of the United States of America	Morgan C. Hall	Economic Officer
Embassy of the United States of America	Robin K. McClellan	First Secretary Environment, Science and Technology
Embassy of the United States of America	Judith R. Fergin	Economic Counselor
Departemen Perindustrian Dan Perdagangan Pusat Pengkajian Perdagangan Dalam Negeri Badan Penilitian Dan PengemBangan Industri Dan Perdagangan	Drs. Nurdin Noor, MA	Kepala Pusat
Ministry of Industry and Trade Research and Development Agency for Industry and Trade Centre for Domestic Trade Research	Drs. Jully P. Tambunan, MA	Head Division of Domestic Market
Ministry of Communications, Department of Communications Directorate General of Sea Communications Republic of Indonesia	Ir. Tjuk Sukardiman, Msi	Director General of Sea Communications
Ministry of Communications, Directorate General of Sea Communication Directorate of Sea Traffic and Transportation	H. Harijogi	Director
Ministry of Communications, Directorate General of Sea Communication	Adolf R. Tambunan	Planning Division
Ministry of Communications, Directorate General of Sea Communication	Heru Prasetyo	Head of Legal Division
Directorate General of Sea Communication	Simson Sianaga, SEMSc.	Directorate of Sea Traffic
Ministry of Communication Directorate General of Sea Communication Directorate of Sea Transport	M. Simaremare	Deputy Director for Data & Information of Sea Communication
Ministry of Communications Republic of Indonesia	Umar Rusdi	Chairman of Research and Development Agency
Ministry of Communications, Directorate General of Sea Communication	Thomas A. Sitorus, SE, MA	Directorate of Sea Transport
Ministry of Communications, Directorate General of Sea Communications	Dra. Ec. Leila Hasana M.M.	Directorate of Sea Traffic
Pt. (Persero) Pelabuhan Indonesia II	Herman Prayitno	Direktur Utama
PT. Djakarta Lloyd (Persero)	F.J. Manoppo. MBA. Ph>D	President Director
Gabungan Importir Nasional Seluruh Indonesia Importers Association of Indonesia Badan Pengurus Pusat	H. Amirudin Saud	Ketua Umum
Gabungan Importir Nasional Seluruh Indonesia Importers Association of Indonesia Badan Pengurus Pusat	Kaswara Kasturi	Penasehat
Gabungan Perusahaan Ekspor Indonesia Indonesia Exporter Association Dewan Pengurus Pusat	H. Amri P. Wirabumi	Ketua
Hasfarm Pt. Hasfarm International Corporation	Ibrahim Hasan, Ph.D.	President Director

Company	Name	Title
PT Hasfarm Dian Konsultan	Ir. Toha Karta, M. Eng.	Director
Ikatan Perusahaan Industri Kapal Dan Sarana Lepas Pantai Indonesia Shipbuilding and Offshore Industries Association	Ir. S.M. Pohan	Chairman for Supporting/Related Industries
Ikatan Perusahaan Industri Kapal Dan Sarana Lepas Pantai Indonesia Shipbuilding and Offshore Industries Association	Josewanto Karijodimejo	Chairman
Ikatan Perusahaan Industri Kapal Dan Sarana Lepas Pantai Indonesia	Kuntarto Indarmito, SH	Secretary General
Indonesian Cargo Handling Companies Association	Drs. R. Soebroto	Secretary General
Indonesia Shipping Agent Association	Capt. Dr. Anthon Sihombing, Msc	Ketua Umum
Indonesia Shipping Agent Association	John P. Sianturi, SE	Sekretaris Umum
PT. Jasa Marina Indah, PT. Jasa Marinda Perdana, PT. Jurong Clavon Indonesia, PT. Menara Kadin Indonesia	Joeswanto Karijodimedjo	President Director
Maersk Sealand	Anil Wats	Senior Owner Representative
Maersk Sealand	Hhilda Wibowo	Assistant Project Manager
Pt. Pelayaran Meratus	Torstein Hallaraker Jr.	Advisor
PT. Pelayaran Meratus	Budi Mulijono Rachman	Branch Manager
PT. Pelayaran Nasional Indonesia (PELNI)	Dra. Lieswati Estherina Sumatro	Div. Kapal Penumpang
PT. Pelayaran Nasional Indonesia	Jussavella Sahea	Agency Manager
Persatuan Pelayaran Niaga Indonesia, Indonesian National Shipowners' Assosiation	Barens Th. Saragih	Secretary General
Persatuan Pelayaran Niaga Indonesia Indonesia National Shipowners' Assosiation	Mochamad Syawal	Secretary
PT. (Persero) Pelabuhan Indonesia II	Ir. Harmani	Direktur Personalia dan Umum
PT. Rekapola Bahari	Alle Pasau	Director
PT Samudera Indonesia Tbk.	Randy Effendi	President/Direktur Utama
PT. Transbuana Pujijaya	Christian Skibenes	President Director
PT Tropika Flora Persada	Ir. Sapto Hadi	Direktur
The World Bank	David M. Hawes	Sector Coordinator-Energy and Transport

Appendix D

SUPPORTING TABLES

Table D-1. Pelindo I: International and Domestic Traffic at Commercial Ports by Type of Cargo, 1999 (000's tons)

Type of cargo	Belawan	Dumai	Lhok Seumawe	Tanjung Pinang	Pekanbaru	Pangkalan Brandan/ Susu	Kuala Tanjung	Bagan Siapi Api	Sibolga	Malahayati	Tanjung Balai Asahan	Tembilahar	Gunung Sitoli	Meulaboh	Begkalis	Kuala Langsa	Selat Panjang	Rengat	Tanjung Belai Karimun	Utpk. Gabion	Total
Imports																					
General cargo	86.2	22.2	0.9	6.5	108.4	5.8	4.6	-	-	2.6	9.4	-	-	-	-	0.6	6.6	4.4	-	8.5	266.7
Bag cargo	839.8	323.4	5.0	1.2	23.9	-	22.0	-	7.3	1.5	-	-	-	-	-	-	-	-	-	28.1	1,252.2
Unitized Carg	49.8	16.4	21.0	-	84.2	-	-	-	-	3.1	-	-	-	-	-	1.8	-	-	-	90.1	266.4
Dry bulk	506.6	145.0	-	-	172.1	-	177.2	-	-	65.9	-	-	11.7	-	-	-	-	-	-	10.0	1,088.5
Liquid Bulk	54.0	2,322.9	-	0.2	-	8.4	-	-	-	29.4	-	4.8	-	-	-	4.7	-	-	-	-	2,424.4
Container cargo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	496.9	496.9
Subtotal	1,536.4	2,829.9	26.9	7.9	388.6	14.2	203.8	-	7.3	102.5	9.4	4.8	11.7	-	-	7.1	6.6	4.4	-	633.6	5,298.2
Exports																					
General cargo	189.3	22.8	-	97.1	11.7	3.6	380.6	-	-	1.6	51.7	-	-	-	-	1.8	18.1	-	3.8	7.1	789.2
Bag cargo	93.5	8.2	73.3	0.4	3.3	-	-	-	-	-	12.1	-	-	-	-	0.5	-	-	-	9.1	200.4
Unitized Carg	92.0	36.1	24.3	137.4	1,680.3	-	-	1.6	50.6	5.0	3.4	2.1	-	-	-	30.5	-	-	0.3	108.1	2,171.7
Dry bulk	397.0	312.9	20.3	2,350.0	18.9	-	21.0	-	9.5	179.9	-	102.9	-	-	-	-	-	-	4,072.3	-	7,484.7
Liquid Bulk	1,517.7	17,391.0	4,647.6	154.8	4.3	1.4	-	-	-	-	-	70.5	-	-	-	1.1	-	-	-	-	23,788.4
Container cargo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	988.4	988.4
Subtotal	2,289.5	17,771.0	4,765.5	2,739.7	1,718.5	5.0	401.6	1.6	60.1	186.5	67.2	175.5	-	-	-	33.9	18.1	-	4,076.4	1,112.7	35,422.8
Domestic -unloading																					
General cargo	198.7	77.5	-	369.8	746.4	0.1	68.8	12.2	124.8	7.4	1.2	14.8	113.2	-	6.2	-	13.8	14.5	35.2	1.0	1,805.6
Bag cargo	699.3	194.2	-	101.5	114.4	-	-	27.6	10.9	-	7.8	6.3	53.5	-	13.3	0.7	9.8	-	7.4	0.8	1,247.5
Unitized Carg	149.9	11.2	-	3.6	66.9	36.0	-	2.9	2.4	49.8	0.3	-	-	-	-	-	14.7	-	-	25.2	362.9
Dry bulk	1,012.7	46.8	15.0	765.0	258.0	2.6	-	-	-	285.2	-	4.1	-	-	-	-	-	-	-	-	2,389.4
Liquid Bulk	2,201.4	1,588.7	26.7	308.3	189.1	50.7	-	1.7	179.7	234.9	-	47.0	18.5	43.6	3.6	6.4	5.3	22.3	53.4	2.6	4,983.9
Container cargo	44.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	299.2	343.4
Subtotal	4,306.2	1,918.4	41.7	1,548.2	1,374.8	89.4	68.8	44.4	317.8	577.3	9.3	72.2	185.2	43.6	23.1	7.1	43.6	36.8	96.0	328.8	11,132.7
Domestic -Loading																					
General cargo	124.9	9.5	-	8.8	103.2	0.6	147.6	-	165.8	7.7	3.7	6.7	82.1	-	0.2	-	16.2	9.8	-	2.0	688.8
Bag cargo	314.2	37.2	23.2	5.5	0.3	0.5	-	-	46.5	-	3.3	0.2	5.1	7.5	0.1	2.3	57.0	-	-	11.3	514.2
Unitized Carg	103.2	4.6	9.3	3.3	1,081.5	3.3	-	13.9	2.8	0.4	0.3	21.2	12.2	9.6	-	2.2	-	0.4	-	25.4	1,293.6
Dry bulk	32.1	25.2	42.2	836.5	-	-	-	-	-	415.1	4.5	3.6	-	-	-	-	-	6.9	-	-	1,366.1
Liquid Bulk	544.0	17,508.8	160.6	99.1	120.0	84.3	-	-	8.3	-	30.2	40.7	2.9	12.5	0.3	17.2	-	244.6	-	-	18,873.5
Container cargo	31.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	174.3	205.3
Subtotal	1,149.4	17,585.3	235.3	953.2	1,305.0	88.7	147.6	13.9	223.4	423.2	42.0	72.4	102.3	29.6	0.6	21.7	73.2	261.7	-	213.0	22,941.5
Total all cargo	9,281.5	40,104.6	5,069.4	5,249.0	4,786.9	197.3	821.8	59.9	608.6	1,289.5	127.9	324.9	299.2	73.2	23.7	69.8	141.5	302.9	4,172.4	2,288.1	74,795.2

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Table D-2. Pelindo II: International and Domestic Traffic at Commercial Ports by Type of Cargo, 1999 (000's tons)

Type of cargo	Tanjung Priok	Panjang	Palembang	Teluk Bayur	Pontianok	Cirebon	Banten	Sunda Kelapa	Jambi	Bengkulu	Tanjung Pandan	Pkl Balam	Telok Aer Sintete	Aer	Muntok	Ketapang	Air Bangis	Total
Imports																		
General cargo	1,091.1	182.7	59.4	22.7	37.7	-	181.9	-	69.5	1.0	3.5	9.2	0.7	-	-	-	-	1,659.4
Bag cargo	1,253.3	538.9	274.3	158.6	123.9	142.5	91.6	-	9.0	31.1	7.2	83.4	1.2	-	-	-	-	2,715.0
Unitized Carg	1,249.9	25.4	3.2	0.5	8.9	-	393.0	-	16.6	-	-	-	-	-	-	-	-	1,697.5
Dry bulk	2,737.0	60.7	5.7	136.1	-	5.2	3,934.0	-	-	-	2.2	-	-	-	-	-	-	6,880.9
Liquid Bulk	2,043.2	60.7	51.7	-	1.8	1.9	3,459.8	-	12.9	-	-	-	-	-	-	-	-	5,632.0
Container cargo	5,073.5	101.1	-	-	4.5	-	-	-	260.8	-	-	-	-	-	-	-	-	5,439.9
Subtotal	13,448.0	969.5	394.3	317.9	176.8	149.6	8,060.3	-	368.8	32.1	12.9	92.6	1.9	-	-	-	-	24,024.7
Exports																		
General cargo	1,029.3	585.6	336.5	154.0	236.5	-	864.3	-	388.4	-	30.3	25.4	2.3	21.0	34.4	-	-	3,708.0
Bag cargo	1,211.7	232.5	156.1	606.2	2.5	-	61.3	-	1.7	-	65.1	35.6	0.4	-	-	-	-	2,373.1
Unitized Carg	1,118.7	29.4	101.1	199.0	473.8	-	173.7	-	341.5	-	-	-	-	4.6	-	111.3		2,553.1
Dry bulk	1,352.0	1,521.7	229.5	2,626.6	-	-	70.6	-	-	1,160.0	196.2	55.4	-	-	-	-	-	7,212.0
Liquid Bulk	154.5	1,521.7	152.9	93.4	2.0	-	892.3	-	5.5	-	-	-	-	-	-	-	-	2,822.3
Container cargo	5,332.5	586.9	-	-	46.5	-	-	-	313.7	-	-	-	-	-	-	-	-	6,279.6
Subtotal	10,198.7	4,477.8	976.1	3,679.2	761.3	-	2,062.2	-	1,050.8	1,160.0	291.6	116.4	2.7	25.6	34.4	111.3	-	24,948.1
Domestic -unloading																		
General cargo	2,585.1	54.1	75.4	74.1	598.6	170.8	110.7	1,565.9	296.0	63.2	74.2	104.1	29.2	3.2	99.8	33.0	0.6	5,938.0
Bag cargo	442.2	466.8	126.7	157.7	225.0	282.6	1.2	345.8	102.5	94.2	58.0	178.8	51.6	-	41.8	27.8	-	2,602.7
Unitized Carg	344.9	51.8	20.2	96.4	138.8	30.7	21.3	-	232.5	4.3	-	-	-	0.7	-	-	-	941.6
Dry bulk	867.1	70.3	163.2	87.4	-	958.5	9,516.0	-	22.4	1.9	1.8	7.8	-	-	9.4	-	-	11,705.8
Liquid Bulk	6,771.5	70.3	704.9	1,424.6	724.8	194.7	2,362.9	28.4	458.9	137.6	60.6	470.5	-	-	14.8	-	-	13,424.5
Container cargo	731.3	-	111.5	75.8	417.3	-	0.2	-	16.9	-	-	-	-	-	-	-	-	1,353.0
Subtotal	11,742.1	713.3	1,201.9	1,916.0	2,104.5	1,637.3	12,012.3	1,940.1	1,129.2	301.2	194.6	761.2	80.8	3.9	165.8	60.8	0.6	35,965.6
Domestic -Loading																		
General cargo	2,175.0	68.0	21.1	185.4	161.0	3.0	22.8	593.5	493.3	1.6	96.4	20.4	7.6	26.5	52.0	-	0.6	3,928.2
Bag cargo	347.3	335.0	470.3	349.2	27.9	34.8	-	415.3	49.6	-	139.8	55.7	6.8	-	11.0	4.1	-	2,246.8
Unitized Carg	320.9	3.6	11.0	7.3	92.7	-	53.1	-	92.4	1.2	-	-	-	6.1	-	6.6	-	594.9
Dry bulk	276.0	5,795.6	1,671.1	726.1	-	-	129.9	-	3.7	20.3	248.7	1.1	-	-	2.7	-		8,875.2
Liquid Bulk	262.0	5,795.6	4,139.6	795.9	101.1	3.8	1,014.9	6.3	644.1	63.4	-	70.9	-	-	-	-	-	12,897.6
Container cargo	1,575.7	-	339.5	170.6	281.2	-	0.3	-	110.5	-	-	-	-	-	-	-	-	2,477.8
Subtotal	4,956.9	11,997.8	6,652.6	2,234.5	663.9	41.6	1,221.0	1,015.1	1,393.6	86.5	484.9	148.1	14.4	32.6	65.7	10.7	0.6	31,020.5
Total all cargo	40,345.7	18,158.4	9,224.9	8,147.6	3,706.5	1,828.5	23,355.8	2,955.2	3,942.4	1,579.8	984.0	1,118.3	99.8	62.1	265.9	182.8	1.2	115,958.9

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Table D-3. Pelindo III: International and Domestic Traffic at Commercial Ports by Type of Cargo, 1999 (000's tons)

Type of cargo	Tanjung Perak	Tanjung Emas	Banjarmasin	Benoa	Tenau Kupang	Lembar	Gresik	Meneng	Sampit	Tanjung Intan Cilacap	Probolinggo	Tegal	Celukan Bawang	Maumere	Bima	Pulang Pisau	Kotabaru	Kumai	Total
Imports																			
General cargo	1,049.6	266.2	39.1	8.9	2.3	-	-	54.6	0.8	1.8	-	-	-	-	-	-	12.5	-	1,435.8
Bag cargo	1,283.9	414.5	30.9	9.9	46.3	22.7	-	13.6	1.0	241.9	-	-	-	-	-	-	-	-	2,064.7
Unitized Carg	208.8	4.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	213.6
Dry bulk	2,240.0	239.1	-	-	-	-	1,237.4	-	-	229.9	-	-	-	-	-	-	-	-	3,946.4
Liquid Bulk	169.8	46.1	32.9	-	-	-	340.7	20.6	-	6,658.7	-	-	-	-	-	-	-	-	7,268.8
Container cargo	818.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	818.6
Subtotal	5,770.7	970.7	102.9	18.8	48.6	22.7	1,578.1	88.8	1.8	7,132.3	-	-	-	-	-	-	12.5	-	15,747.9
Exports																			
General cargo	318.1	662.5	842.3	1.4	1.5	-	125.0	72.3	21.4	3.5	112.6	-	-	1.1	-	14.3	104.5	207.8	2,488.3
Bag cargo	121.0	-	-	-	8.1	-	242.9	-	-	304.6	-	-	-	-	-	-	-	-	676.6
Unitized Carg	118.3	136.0	-	-	-	-	-	-	29.3	-	-	-	-	-	-	-	-	-	283.6
Dry bulk	93.5	85.8	9,218.1	-	-	-	317.9	227.2	-	424.1	-	-	-	-	-	5.8	11,407.8	-	21,780.2
Liquid Bulk	114.0	18.6	-	-	-	-	118.7	-	-	813.6	-	-	-	-	-	-	20.0	-	1,084.9
Container cargo	1,299.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,299.7
Subtotal	2,064.6	902.9	10,060.4	1.4	9.6	-	804.5	299.5	50.7	1,545.8	112.6	-	-	1.1	-	20.1	11,532.3	207.8	27,613.3
Domestic -unloading																			
General cargo	2,070.7	822.0	1,544.9	162.8	121.1	82.8	1,134.6	22.9	115.9	6.0	147.0	29.2	101.1	28.2	50.7	87.9	73.6	64.2	6,665.6
Bag cargo	378.4	95.6	266.4	11.0	65.1	189.1	21.0	40.3	50.3	8.0	6.2	-	151.7	40.0	87.5	-	4.1	26.9	1,441.6
Unitized Carg	113.7	93.7	-	-	28.8	-	-	1.5	10.3	-	-	-	-	-	-	-	-	2.5	250.5
Dry bulk	1,948.7	560.8	540.2	-	94.8	-	543.4	258.8	-	2,704.5	-	-	450.9	-	-	-	4,316.5	14.7	11,433.3
Liquid Bulk	6,303.5	2,624.4	633.1	852.1	317.7	13.8	199.3	835.7	57.5	7,512.7	250.5	-	-	0.9	78.4	133.9	443.2	17.8	20,274.5
Container cargo	486.2	436.5	816.6	3.8	21.7	-	-	-	58.8	-	-	-	-	-	-	-	-	-	1,823.6
Subtotal	11,301.2	4,633.0	3,801.2	1,029.7	649.2	285.7	1,898.3	1,159.2	292.8	10,231.2	403.7	29.2	703.7	69.1	216.6	221.8	4,837.4	126.1	41,889.1
Domestic -Loading																			
General cargo	2,146.0	298.6	739.5	103.8	44.6	1.8	27.1	102.3	269.9	2.6	19.6	19.4	13.4	0.6	11.4	185.3	89.3	203.9	4,279.1
Bag cargo	654.3	103.4	153.7	1.6	45.7	97.4	455.9	91.4	-	5.0	-	-	11.4	18.7	43.5	-	280.0	6.6	1,968.6
Unitized Carg	30.8	22.0	-	-	0.8	-	-	0.7	664.9	-	-	-	-	-	-	-	-	3.3	722.5
Dry bulk	124.0	52.0	807.4	-	-	-	393.9	20.7	0.5	127.4	-	-	-	-	-	-	2,016.1	3.2	3,545.2
Liquid Bulk	497.8	16.4	182.2	-	196.8	-	86.5	342.0	25.9	7,295.0	30.8	-	-	-	-	40.5	262.7	57.6	9,034.2
Container cargo	847.0	1,287.7	487.5	76.4	11.6	-	-	-	44.7	-	-	-	-	-	-	0.6	-	-	2,755.5
Subtotal	4,299.9	1,780.1	2,370.3	181.8	299.5	99.2	963.4	557.1	1,005.9	7,430.0	50.4	19.4	24.8	19.3	54.9	226.4	2,648.1	274.6	22,305.1
Total all cargo	23,436.4	8,286.7	16,334.8	1,231.7	1,006.9	407.6	5,244.3	2,104.6	1,351.2	26,339.3	566.7	48.6	728.5	89.5	271.5	468.3	19,030.3	608.5	107,555.4

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Table D-4. Pelindo IV: International and Domestic Traffic at Commercial Ports by Type of Cargo, 1999 (000's tons)

Type of cargo	Makassar	Balikpapan	Samarinda	Bitung	Ambon	Sorong	Jayapura	Biak	Tarakan	Pantoloan	Ternate	Pare-Pare	Kendari	Merauke	Manokwari	Gorontalo	Fak-Fak	Nunukan	Manado	Toli-Toli	Total
Imports																					
General cargo	-	17.0	1.9	4.9	2.3	0.5	-	1.5	0.5	-	-	13.6	-	-	-	-	-	-	-	-	42.2
Bag cargo	57.0	27.7	6.2	44.9	1.1	-	-	12.5	0.3	-	-	-	-	-	-	-	-	-	-	-	149.7
Unitized Carg	0.1	8.5	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.6
Dry bulk	357.3	2.9	4.9	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	365.3
Liquid Bulk	-	2,000.9	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,001.9
Container cargo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	414.4	2,057.0	19.0	49.8	3.4	0.5	-	14.2	0.8	-	-	13.6	-	-	-	-	-	-	-	-	2,572.7
Exports																					
General cargo	0.2	3.0	0.5	32.9	1.4	13.5	-	31.8	0.5	-	-	-	1.7	-	-	0.7	-	-	-	-	86.2
Bag cargo	366.0	-	0.6	17.7	0.2	8.1	-	-	-	65.7	2.8	-	-	-	-	18.6	-	-	-	-	479.7
Unitized Carg	0.4	672.2	64.7	0.7	-	53.5	-	-	34.0	-	-	-	-	-	-	-	-	-	-	-	825.5
Dry bulk	70.2	1,341.0	3,235.1	55.9	-	5.2	-	1.5	290.8	-	-	-	-	34.5	-	-	-	-	-	-	5,034.2
Liquid Bulk	23.9	10,244.0	350.9	167.1	-	-	-	-	52.7	-	-	-	0.3	-	-	-	-	-	-	-	10,838.9
Container cargo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal	460.7	12,260.2	3,651.8	274.3	1.6	80.3	-	33.3	378.0	65.7	2.8	-	2.0	34.5	-	19.3	-	-	-	-	17,264.5
Domestic -unloading																					
General cargo	173.5	84.3	52.2	82.3	30.9	142.7	136.9	94.2	96.6	92.1	24.2	32.6	63.4	53.0	28.2	67.1	10.3	23.9	1.4	3.8	1,293.6
Bag cargo	788.1	146.7	125.8	243.4	11.8	69.9	94.4	28.1	67.2	168.4	106.5	23.9	79.7	27.3	27.9	75.2	13.8	-	13.5	19.7	2,131.3
Unitized Carg	114.1	74.5	52.7	31.4	-	48.4	7.5	0.8	-	7.9	-	-	-	-	0.1	-	0.1	-	-	-	337.5
Dry bulk	182.8	722.2	314.6	93.0	-	4.6	-	13.4	25.6	-	-	-	-	-	-	-	-	-	-	-	1,356.2
Liquid Bulk	1,077.5	4,238.1	58.3	504.1	19.9	-	129.7	77.5	110.0	150.5	6.5	234.1	151.1	0.4	-	1.0	2.1	4.3	-	-	6,765.1
Container cargo	759.4	263.0	817.7	416.7	54.6	6.3	6.0	0.2	-	-	-	-	-	-	-	-	-	-	-	-	2,323.9
Subtotal	3,095.4	5,528.8	1,421.3	1,370.9	117.2	271.9	374.5	214.2	299.4	418.9	137.2	290.6	294.2	80.7	56.2	143.3	26.3	28.2	14.9	23.5	14,207.6
Domestic -Loading																					
General cargo	20.2	26.0	14.7	36.7	33.5	32.9	15.9	10.5	21.7	40.3	13.6	115.7	35.7	5.5	2.2	45.8	0.6	-	13.6	0.7	485.8
Bag cargo	400.1	31.7	2.0	51.5	12.8	8.3	5.1	5.4	7.5	29.4	42.8	69.8	19.2	0.3	2.2	11.9	2.9	-	14.5	4.0	721.4
Unitized Carg	9.7	25.1	34.5	1.3	-	12.5	2.0	1.3	-	1.0	-	3.5	-	-	-	-	0.1	-	-	-	91.0
Dry bulk	7.0	39.4	246.9	3.1	-	1.6	-	0.2	-	412.0	-	-	-	-	1.9	0.6	-	-	-	-	712.7
Liquid Bulk	379.2	5,532.6	18.8	270.8	8.0	1.7	14.3	10.9	246.7	0.1	7.2	0.9	-	-	25.3	8.8	2.0	-	1.8	-	6,529.1
Container cargo	430.3	42.7	487.1	85.8	38.2	0.2	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	1,085.9
Subtotal	1,246.5	5,697.5	804.0	449.2	92.5	57.2	37.3	29.9	275.9	482.8	63.6	189.9	54.9	5.8	31.6	67.1	5.6	-	29.9	4.7	9,625.9
Total all cargo	5,217.0	25,543.5	5,896.1	2,144.2	214.7	409.9	411.8	291.6	954.1	967.4	203.6	494.1	351.1	121.0	87.8	229.7	31.9	28.2	44.8	28.2	43,670.7

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Table D-5. International and Domestic Container Movements at Commercial Ports by IPC Region, 1999 (TEUs)

	International						Domestic						Grand	Percent empty				
	Imports			Exports			Unloaded			Loaded								
IPC region and port	Full	Empty	Total	Full	Empty	Total	Full	Empty	Total	Full	Empty	Total	total	Imports	Exports	Unloaded	Loaded	Total
IPC -1																		
Belawan	-	-	-	-	-	-	3,623	2,695	6,318	2,303	1,258	3,561	9,879	-	-	42.7	35.3	40.0
Utpk. Gabion	45,925	53,609	99,534	99,840	4,294	104,134	26,008	3,000	29,008	16,821	7,189	24,010	256,686	53.9	4.1	10.3	29.9	26.5
Subtotal IPC-1	45,925	53,609	99,534	99,840	4,294	104,134	29,631	5,695	35,326	19,124	8,447	27,571	266,565	53.9	4.1	16.1	30.6	27.0
IPC-2																		
Tajung Priok a/	450,371	137,500	587,871	586,742	19,205	605,947	51,004	55,924	106,928	96,941	20,670	117,611	1,418,357	23.4	3.2	52.3	17.6	16.4
Panjang	5,525	26,672	32,197	31,804	1,211	33,015	-	-	-	-	-	-	65,212	82.8	3.7	-	-	42.8
Palembang	-	-	-	-	-	-	6,569	15,424	21,993	21,867	2,745	24,612	46,605	-	-	70.1	11.2	39.0
Teluk Bayur	-	-	-	-	-	-	4,334	2,571	6,905	7,323	755	8,078	14,983	-	-	37.2	9.3	22.2
Pontianok	360	1,918	2,278	2,437	202	2,639	25,929	5,995	31,924	15,619	15,704	31,323	68,164	84.2	7.7	18.8	50.1	34.9
Banten	-	-	-	-	-	-	24	-	24	43	-	43	67	-	-	-	-	-
Jambi	-	-	-	-	-	-	1,101	9,022	10,123	10,284	122	10,406	20,529	-	-	89.1	1.2	44.5
Subtotal IPC-2	456,256	166,090	622,346	620,983	20,618	641,601	88,961	88,936	177,897	152,077	39,996	192,073	1,633,917	26.7	3.2	50.0	20.8	19.3
IPC-3																		
Tanjung Perak	56,802	37,370	94,172	89,147	1,576	90,723	45,058	64,550	109,608	152,220	136,151	288,371	582,874	39.7	1.7	58.9	47.2	41.1
Tanjung Emas	-	-	-	-	-	-	40,160	61,682	101,842	127,814	1,042	128,856	230,698	-	-	60.6	0.8	27.2
Banjarmasin	-	-	-	-	-	-	50,338	7,845	58,183	35,269	15,806	51,075	109,258	-	-	13.5	30.9	21.6
Benoa	-	-	-	-	-	-	379	8331	8,710	7638	1141	8,779	17,489	-	-	95.6	13.0	54.2
Tenau Kupang	-	-	-	-	-	-	2,174	294	2,468	1,157	929	2,086	4,554	-	-	11.9	44.5	26.9
Sampit	-	-	-	-	-	-	3,266	2,856	6,122	4,134	1,715	5,849	11,971	-	-	46.7	29.3	38.2
Pulang Pisau b/	144	-	144	-	144	144	-	91	91	91	-	91	470	-	100.0	100.0	-	50.0
Subtotal IPC-3	56,946	37,370	94,316	89,147	1,720	90,867	141,375	145,649	287,024	328,323	156,784	485,107	957,314	39.6	1.9	50.7	32.3	35.7
						-												
IPC-4																		
Makassar	-	-	-	-	-	-	62,571	1,334	63,905	47,033	14,580	61,613	125,518	-	-	2.1	23.7	12.7
Balikpapan	-	-	-	-	-	-	15,278	1,159	16,437	2,454	8,651	11,105	27,542	-	-	7.1	77.9	35.6
Samarinda	-	-	-	-	-	-	50,365	5,509	55,874	31,699	22,545	54,244	110,118	-	-	9.9	41.6	25.5
Bitung	-	-	-	-	-	-	23,965	360	24,325	6,063	18,487	24,550	48,875	-	-	1.5	75.3	38.6
Ambon	-	-	-	-	-	-	3,718	-	3,718	2,855	389	3,244	6,962	-	-	-	12.0	5.6
Sorong	-	-	-	-	-	-	763	11	774	16	45	61	835	-	-	1.4	73.8	6.7
Jayapura	-	-	-	-	-	-	1,306	-	1,306	27	732	759	2,065	-	-	-	96.4	35.4
Biak	-	-	-	-	-	-	56	115	171	129	14	143	314	-	-	67.3	9.8	41.1
Subtotal IPC-4	-	-	-	-	-	-	158,022	8,488	166,510	90,276	65,443	155,719	322,229	-	-	5.1	42.0	22.9
Total all IPCs	559,127	257,069	816,196	809,970	26,632	836,602	417,989	248,768	666,757	589,800	270,670	860,470	3,180,025	31.5	3.2	62.7	31.5	25.3

a/ Includes 9653 Teus of transshipment containers in full imports.

b/ Includes 144 Teus of transhippment containers.

Source:Direktorat Pelabuhan Dan Pengerukan, Sub Direktorat Pengembangan Pelabuhan, Rekapitulasi Operasional Pelabuhan, PT (Persero) Pelabuhan Indonesia, Tahun 1999, Jakarta 2000.

Table D-6. Indonesia: Pioneer Routes, 2000

Port	Route	Network and Distance (miles)
Teluk Bayur	R-1	TelukBayur -132- Singapokna -37-Sigologolo -14- Saeru -15- Boluta -24- P.Tello -48- T.Dalam -29- Sehe -20-Sirombu -30-Solonako -15- Afulu -15-Lahewa -40- Gunung Sitoli -59- Singkil -33- P.Banyak -112- P.Simeulu -70- Tapak Tuan PP.
	R-2	Teluk Bayur -132- Singapokna -18- Sinaki –16- Sikabaluan -14- Srilagui -14- Muarasaibi -16- Siberut -22- Saumanuk-40- Sioban –22- Berilau –30- Pasapuat -18-Sikakap-62-Sinakak-41-Buke/Bulasat-140-Bengkulu PP.
Bengkulu	R-3	Bengkulu -110- Enggano -110- Bengkulu -110- Enggano –110- Bengkulu -110-Enggano -110- Bengkulu -140- Buke / Bulasat -41- Sinakak -62- Sikakap-18- Pasapuat -30- Berilau –22- Sioban- 68- Sigalubek -16- Simatalu -24- Simaligi–26- Singapokna -132- Teluk Bayur PP.
Tanjung Pinang	R-4	Tanjung Pinang -224- Tambelan -96-Sintete -105- Serasan -107- Ranai -55-Sedanau -52- Midai -112- Tarempa -43-Letung-175-Tanjung Pinang
	R-5	Sintete -96- Tambelan -224- Tanjung Pinang –175- Letung -43- Tarempa -112-Midai -52- Sedanau -55- Ranai / Selat Kampar-107-Serasan-105-Sintete.
	R-6	Sintete -198- P.Tikar/T.Air -95- P.Pelapis -30- Betok / Karimata -60- Ketapang -90-Kendawangan-128-Kuala Jelai/Sukamara-180-Karimun Jawa-78-Semarang PP.
Surabaya	R-7	Surabaya -150- Masalembo -113-Kalianget -30-Sapudi-62- Kangean -50- Sepekan -120- Tanjung Wangi/Meneng PP
Bitung	R-8	Bitung-285-G.Santos-285- Bitung -142- Tahuna-92- Mangarang -14- Lirung -4- Melonguane -30-Essang (Laluwe) -39- Karatung 60- Miangas-84- Marore -6- Kawio –28- Kawaluso -45- Tahuna-142-Bitung PP.
	R-9	Bitung -142- Tahuna -45- Kawaluso -28- Kawio –6-marore -84- Miangas -80- Karatung -39- Essang (Laluwe) -30- Melonguane -4- Lirung -14- Mangarang -92- Tahuna –142- Bitung –285-G.Santos-285-Bitung.
Pagimana	R-10	Pagimana -46- Kanari -6- Populii -12- Malingi -17- Batudaka -42- Ampana -60-Poso PP.
		Pagimana -115- Banggai -9- Mansalean -22-Bonebene -78- Bungku -50- Kalerong -86- Ulunambo -115- Baubau -243- Ujung Pandang PP.
Ujung Pandang	R-11	Ujung Pandang -119- Selayar -55- Jampea -45-Bonerate-112- Kalatoa (Latodo) -196- Reo –116-Maumere-81-Larantuka-124-Kupang PP.
Kendari	R-12	Kendari -105- Wanci (P.Wangiwangi) -206-Kawaluso (P.Taliabu) -22- Bobong (P.Taliabu)-17- Lede (P.Taliabu) -70- Dofa (P.Mangole) -70-Lede (P.Taliabu) -212- Lasalimu-24- Wanci (P.Wangiwangi) -27- Burunga (P.Kaledupa) –31-Usuku (P.Tomia) –17- Papalia (P.Binongko) –112- Baubau / Banabungi -62- Sikeli -100- Kolaka -226- Ujung Pandang / Biringkasi –226-Kolaka-100- Sikeli -62- Baubau / Biringkasi –43-Raha-72-Kendari.
Kupang	R-13	Kupang -72- Ndao -64- Sabu -24- Raijua –105-Ende-38- Maumbawa -26-Aimere -28- Mborong-112-Waingapu -84- Waikelo -78 Labuhan Bajo-78- Waikelo -84- Waingapu –112- Mborong -28-Aimere-26-Maumbawa –38- Ende -105- Raijua -24-Sabu -64-Ndao -72- Kupang.
	R-14	Kupang -124- Kalabahi -72- Maritaim -34-Dilli-44- Lirang –82- Kisar -48-Wetar -48- Kisar –100- Dilli -34- Maritaim -72- Kalabahi -124- Kupang.
	R-15A	Kupang -124- Larantuka -80- Balauring -68-Baranusa-45- Kalabahi -108- Dilli -58- Atapupu-64- Kalabahi -45- Baranusa -68-Balauring -80- Larantuka -124- Kupang.
	R-15B	Kupang -194- Maumere -37- Palue -27-Marapokot-57-Reo -52- Labuhan Bajo-76-Bima -76- Labuhan Bajo -52- Reo -57-Marapokot –27- Palue -37-Maumere -194- Kupang.
Dilli	R-16	Dilli -95- Com -95- Dilli -91- Oekusi -85- Kalabahi -65- Waiwerang -97- Reo -192- Bonerate -66- Tanah Jampea -37- Selayar -119- Ujung Pandang/Biringkasi PP.
	R-17	Dilli-95-Com -95- Dilli -56- Atapupu -36- Oekusi-235- Lewoleba -188- Waingapu -175-Calabahi / Kempo -50- Badas -199-Surabaya/Meneng PP.
Ambon	R-18	Ambon -184- Geser -32- Gorom / Ondor -32-P.Kesui-17- P.Tior -36- Kaimear -12- P.Kur –28-P.Toyondo -33- Tual -26- Elat -109-Dobo –24-Benjina -41- Kalarkalar -44- Batu Goyang –44-Kalarkalar-41-Benjina -24- Dobo -109- Elat –26-Tual-110-P.Molu -15-Larat -75-Tutukembong-52-Saumlaki-55- Seira -69- Larat -55- P.Molu –110- Tual -33- P.Toyondo -28- P.Kur -12- Kaimear –36-P.Tior -17-P.Kesui -32- Gorom / Ondor -32- Geser-184- Ambon.
	R-19	Ambon -69- Ulima / P.Ambalau -27- Namrole -16- Leksula PP Ambon -81- Amahai -93- Banda -63- Werinama -61- Geser -32-Gorom / Ondor -85- Fakfak –108- Bula -54- Kobisonta / Kobisadar -35- Wahai -71- Fafanlap -52- Waigama -110- Sorong PP.
	R-20	Ambon-132- Banda -197- Tual -136- Larat -100-Saumlaki -20- Adaut -70- Dawera/Dawelor -13-Kroing -18- Masela -20- Tepa --46- Lelang / Mahaleta -45- Lakor -10- Moa -20- Leti -37-Wonreli/Kisar-18-Com -50- Ilwaki -64- Dilli PP.
	R-21	Ambon -210- Bebar / Wulur -84- Romang -40-Lerokis-75-Ilwaki-64-Kisar/Wonreli-37-Leti-20-Moa -10- Lakor -45- Lelang / Elo -46 Tepa -23- Lewa / Dai -25-Dawera/Dawelor -70- Adaut -20-Saumlaki -100- Larat -136- Tual PP.

Table D-6. Indonesia: Pioneer Routes, 2000

Port	Route	Network and Distance (miles)
Tual	R-22	Tual-118-Dobo -24- Benjina -41- Kalarkalar -44-Batu Goyang PP.
		Tual-325-Ambon PP.
		Tual -110- Molu -124- Kroing -14- Masela -20-Tepa -78- Bebar / Wulur -84- Romang -35- Kisar / Wonreli -32-Arwala/Sutilarang-40-Lerokis-32- Eray / Esulit -67- Dilli PP.
	R-23	Tual-118- Dobo -36- Larat -100- Saumlaki -110-Tepa -100- Moa -20- Leti -32- Kisar / Wonreli -920- Surabaya -456- Biringkasi –458- Com -18- Kisar/Wonreli-37-Leti-20-Moa –100- Tepa –110-Saumlaki -127- Larat -136- Dobo -118- Tual.
Ternate	R-24	Ternate-13- Soasiu -19- Gita / Payahe -60-Indari -36- Saketa -25- Babang -35-Genedalam-55- Besui -34-Mafa-25-Weda-51-Sabenpeopeo -17- Patani -37-Gebe-80- Kabare -46- Sebeyaki -39- Saonek -39-Sorong PP.
	R-25	Ternate -105- Dama -28- Wayabula -26- Berebere -61- Tobelo -42- Wasile –66- Akelamo / Patlean-12- Miaf -46- Buli -28-Bicoli –23- Peniti -7- Gemia Ternate -76- Mayao –23- Tifure -70- Bitung PP.
	R-26	Ternate-110-Babang-52- Madopolo -19- Laiwui-115- Wailor -38- Dofa -61- Lede -50- Bobong –25-Bapenu-50-Pasipa-39- Watina –10- Sanana -124- Fogi -45- Leksula -14- Namrole -71- Namlea -80-Ambon PP.
Jayapura	R-27	Jayapura -139- Sarmi -185- Serui –122-Nabire –153- Biak -112- Wasior –103-Manokwari -71- Saukorem -76- Sausapor -71-Sorong PP.
	R-28	Jayapura -139- Sarmi -185- Serui -120- Biak -153- Nabire -213- Manokwari –207- Sorong –235-Bintuni -159- Fakfak -182-Kaimana –138- Tual-253- Pomako -115- Agats -220- Bade -325- Merauke PP.
Biak	R-29	Biak -78- Saribi -42- Manokwari -75-Saukorem-75- Manokwari -42- Saribi -78-Biak-153- Nabire –100-Waren-22-Serui-44-Kaipuri 75-Teba-66- Sarmi -41- Betaf-100-Jayapura-100-Betaf-41- Sarmi -66-Teba -75- Kaifuri –44- Serui -22- Waren -100-Nabire -153-Biak.
	R-30	Biak -45- Korido -47- Jenggerbun -27-Miosbipondi-45- Saribi -42- Manokwari -30- Oransbari -68-Windesi-30-Wasior-35- P.Roon 35- Wasior -30-Windesi-68-Oransbari-30- Manokwari -42- Saribi -45-Misobipondi-27- Jenggerbun -47- Korido -45-Biak-35-Pom-31-Wooi-40-Ansus -35- Serui -35-Ansus -40- Wooi -31- Pom -35- Biak.
Sorong	R-31	Sorong-135- Mugim -40- Inanwatan -144- Sorong -40- Urbinasopen -30- Mnier -21-Kabare -23- Lamlam –36- P.Ayu –25-Kabare -21- Mnier -30-Urbinasopen-40-Sorong -135- Teminabuan -135-Sorong-89-Selfele-10- Manyaifu -10- Mutus -12-Meosmengkara –40- Saunek -38- Sorong -177-Arandai-80-Bintuni-14-Manameri-32- Babo -32- Manameri -14- Bintuni -80-Arandai -177- Sorong -58- Mega -15-Sausafor-12-Werur-20-Saubeba -28-Wau -47- Saukorem -47- Wau -28- Saubeba -20-Werur -12- Sausapor -15- Mega -58- Sorong.
	R-32	Sorong -135- Teminabuan -135- Sorong -38-Saunek-10-Waisai-12- Wersambin -21- Waifoi -8-Kabilol-41-Waisai -10- Saunek –38- Sorong -86-Segun-105-Fafanlaf-56-Waigama -30- Lenmalas -15- Meoskapal-120- Segun -86- Sorong -58- Mega -15-Sausafor -12- Werur -20- Saubebaba -28- Wau-47-Saukorem-47- Wau -28- Saubeba -20- Werur-52- Sausafor –15- Mega -58-Sorong -135-Teminabuan -70- Mugim -40- Inanwatan -90- Teminabuan -135-Sorong-36-Arefi-26-P.Pam-40-Kofiau-51-P.Gag-60-P.Pam-26-Arefi-36-Sorong.
	R-33	Sorong -177- Arandai -80- Bintuni -40- Babo –79- Kokas-80-Fakfak -130- P.Adi -60- Kaimana -68- Teluk Etna -169- Pomako PP.
	R-34	Sorong-245- Bintuni -40- Babo -79- Kokas -80- Fakfak -184- Kaimana -135-Tual -116- Dobo -194- Pomako –112- Agats –220-Bade PP.
Merauke	R-35	Merauke-145- Kimaam -123- Bayun -134-Atsy -89- Eci/Asui –159- Senggo -159- Eci/Asui -89 –Atsy-134- Bayun –123- Kimaam -145- Merauke.
	R-36	Merauke -325- Bade -150- Atsy -134- Agats -45-Sawaerma-45-Agats-134- Atsy -150- Bade -325- Merauke.
	R-37A	Merauke -145- Kimaam -150- Bade -108- Mur -90- Kepi –90- Mur –150- Kimaam -145- Merauke.
	R-37B	Merauke -145- Kimaam -150- Bade -103- Getentiri -71- Tanahmerah -71- Getentiri -103- Bade -150-Kimaam -145- Merauke.

Source: DGSC, Executive Summary, Sea Transport Data, 1999, Section 2.3.

Appendix E

DRAFT TERMS OF REFERENCE FOR NATIONAL PORT SYSTEM DEVELOPMENT WORKSHOP

DRAFT TERMS OF REFERENCE FOR NATIONAL PORT SYSTEM DEVELOPMENT WORKSHOP

Assistance will be needed by the Ministry of Communications to prepare for and hold a national workshop on port system development. A well-qualified workshop organizer, preferably with good knowledge of the Indonesian sea transport sector, will be needed for a period of eight weeks, including seven weeks for preparation and a week for the workshop. Invitations to prospective attendees should be delivered one month in advance of the event. Presenters should also be lined up by about that date. The workshop specialist will work with most or (if possible) all presenters to ensure that they understand fully their respective roles, and will assist them in preparation of presentations, if assistance is requested. He will write the draft English versions of speeches to be delivered by government officials during the workshop's opening session. He will draft discussion group questions, and will arrange a meeting of presenters and government officials to reach agreement on the finalized versions of the questions. He will arrange for payments to presenters, as required. He will communicate with invitees who are slow in responding to ensure that they attend, or provide suitable substitutes to attend in their place. (This specialist will require a full-time assistant for the three-week period in advance of the workshop and during the workshop, to take care of transport arrangements, adjust hotel room bookings, and make per diem payments when out-of-town attendees arrive. The assistant could be an MOC staff member.)

Workshop Presenters: Presenters who must do research in order to prepare their papers for the workshop must be paid for their periods of research, as well as for attendance at the workshop. Presenters who do not require periods of research or who represent the study tour group might be provided with a standard honorarium. Some presenters might not require payment, other than coverage of transport and accommodation expenses. A tentative list of presenters follows (excluding speeches by government officials in the opening session):

Second Session (port system development)

- Indonesian stakeholder (INSA or INSA member): Present State of Development and Operation of the Indonesian Port System & Effects on Vessel Utilization and Shipping Profitability
- Foreign shipping representative: Importance to Indonesia of Realizing the Potential Role of Tanjung Priok/Bojonegara & Development and Operation Considerations
- Government official (preferably Ministry of Finance): Government Financial Objectives in Regard to Commercial (IPC) Ports
- Indonesian stakeholder (preferably from PT. PELNI): Developing & Operating Ports for Accommodation of Roll-On-Roll-Off (RORO) Vessels, Their Road Vehicles & Passengers
- World Bank official: World Experience in Port System Reform
- Tour Group representative (preferably stakeholder): Findings of the Tour Group
- Port system development specialist, international experience (following a six-week research period in Indonesia): Port System Development & Management Approaches in the Indonesian Context

- Representative of owner of a special port (Indonesian or foreign): Pros & Cons of Employing Special Ports to Supplement and Improve the Performance of the Public Port System
- Foreign port terminal operator: Attracting Foreign Investment in Indonesia Ports
- Port Sector Regulatory Specialist (following four weeks in Indonesia for research and one week for paper preparation): Institutional Options for Oversight & Regulation of the Port Sector
- Legal/regulatory specialist (possibly from MOC): Possible Needs for Legislative & Regulatory Change to Enhance Development of the Indonesian Sea Transport Sector

Third Session (port labor compact)

- Indonesian stakeholder (INSA or INSA member): The Effects of Port Non-service Periods on Vessel Utilization & Shipping Profitability
- Representative of stevedoring industry: Labor Use Approaches for Achieving World Standard Cargo-handling Productivity
- Port labor union representative: Concerns of Port Labor in Considering Adjustment of Existing Work Arrangements at Ports
- International Labor Organization (ILO) official: Efficient Use of Port Labor
- USAID labor project team member: Indonesian Experience in Altering Labor Rules for the Achievement of Higher Productivity
- Indonesian or foreign consultant in Labor Relations (following four weeks of research in Indonesia, and one week for proposal preparation): Port Labor Compact Proposal

Fourth Session (decentralization, as applied to the port system)

- Government official: The Meaning of the Political Decentralization Objective & Implementation Experience to Date
- MOC official: Decentralization Objectives, Concerns & Approaches in Regard to the Indonesian Port System
- Local government officials (from three or more provinces, in successive 10-minute presentations): Objectives & Approaches to Taking Port Ownership, Development and Management Responsibilities
- Indonesian stakeholder (INSA or INSA member): The option of Installing Private Sector Port Managers at Decentralized Ports
- MOC official: Ensuring the Integrity of the Port System While Shifting Port Ownership & development Responsibility
- MOC legal division official (3-4 weeks of supporting technical assistance might be needed): Proposed Port Transfer Agreement with Local Governments

Fifth Session (continuation of consultative process)

- Indonesian stakeholders (3-4 minute statements of representatives of local government, shippers/freight forwarders, cargo-handlers, port labor unions, and domestic and foreign shipping operators regarding need for continuing the consultative process in regard to port system development and operation)
- Indonesian consultant (limited research necessary, two weeks allowed for paper preparation): Proposal for Institutional Approach to Continuation of Port System Development Consultative Process: Purposes, Functions, Methods & Support Requirements

From the foregoing, the workshop-related technical assistance requirements would be:

1. Port system development specialist for seven weeks (perhaps the same person who would have accompanied the study tour group)
2. Port sector regulatory specialist for six weeks
3. Labor relations specialist for six weeks
4. (Possible) Legal specialist for 3 or 4 weeks
5. Indonesian institutional specialist for three weeks

Appendix F

DRAFT TERMS OF REFERENCE FOR REGIONAL PORT STUDY TOUR

TERMS OF REFERNCE FOR REGIONAL PORT STUDY TOUR

Objectives & Scope

The Indonesian port system, as it exists in 2001, is underdeveloped relative to the needs of the country, and there are operational problems which create regular and significant delays at most ports, including at most of the country's principal ports. The Indonesian Government recognizes that an upgraded port system, operating to world performance standards, is needed to support the economic and trade objectives of the country. To achieve these objectives for the Indonesian port system, the government created, during the 1990s, four Indonesian Port Corporations (IPCs) to own, develop, and manage the principal public ports of Indonesia. Existing law permits these corporations to enter into a variety of arrangements with private sector entities, to advance the rate of port system development, to introduce advanced technology and terminal management techniques, and to generate competition within the sector, and thereby raise standards of operations and services.

Private sector participation has been obtained in the principal ports of Tanjung Priok (Jakarta) and Tanjung Perak (Surabaya) for the development and operation of international container terminals. In general, however, expansion of the role of the private sector in the Indonesian port system has been slow. In an effort to accelerate private sector involvement at ports and effect, as well, other operational improvements, the Ministry of Communications and the United States Agency for International Development have agreed that a group of port system stakeholders might usefully make a study tour to learn how other countries of the South and East Asia region are developing and managing their respective port systems. Specifically, the study tour has five objectives:

1. To ascertain the views, objectives, strategies, and experience of other Asian countries in regard to expanding the role of the private sector in port development and operation, and thereby achieve more rapid port system development and higher standards of performance.
2. To learn in some detail about arrangements with the private sector, and possible pitfalls that might be encountered, and how best to avoid those.
3. To learn, in detail, about the restructuring needs of the port-owning entity, and the training programs found useful with both low-level and high-level private sector involvement at ports.
4. To learn about approaches to promote private sector investment at ports, and to establish an environment of competition within and among ports.
5. To prepare a report on study tour findings to be presented to a national port system development workshop, probably to be held in the third or fourth calendar quarter of 2001.

The size of the Indonesian stakeholder group is 24 members, excluding a port system development specialist, who will make study tour arrangements, travel with the group, and assist in preparation of the tour group report. The 24 members of the group tentatively would include:

1. Four members of the Directorate General of Sea Communications, including (if possible) the Director General and the heads of Planning, Legal Division, and the Directorate of Ports & Dredging.
2. Chairman of the Ministry of Communications Research and Development Agency, or his representative.
3. The Managing Director, or his representative, of each of the four Indonesian Port Corporations.
4. A representative of the Ministry of Industry and Trade, with interest in the development of inter-island shipping to enhance opportunities for domestic and international trade growth.
5. Two officers of the Ministry of Finance, of whom one or both represent the Ministry on one or more Boards of Directors of the IPCs.
6. Four members of the Indonesian National Shipowners' Association (INSA).
7. One representative each from the Importers Association of Indonesia, the Indonesia Exporter Association, and the Chamber of Commerce.
8. Two leaders of port labor unions.
9. A representative of the Indonesian Cargo Handling Companies Association.
10. An official of the Freight Forwarders Association.
11. A representative of the Indonesia Shipping Agent Association.

The study tour is planned for a period of 17 days, with visits to the five countries of India, Malaysia, Singapore, Philippines and Japan. In each country, there will be discussion with the government body responsible for port system development, and then one or two of the country's principal ports will be visited, for discussions with port managers, private sector terminal operators, cargo-handlers, and port labor representatives.

Terms of reference for a seven-week assignment of a port system development specialist are presented in Attachment A.

ATTACHMENT A. TERMS OF REFERENCE FOR PORT SYSTEM DEVELOPMENT SPECIALIST ASSIGNMENT (7 WEEKS)

A port system development specialist will be needed for a period of seven weeks (42 working days) in connection with the proposed Asian Port Study Tour. The specialist will carry out the following tasks during the seven-week period:

- Establish the tour group, ensuring that all members of the tour group understand their roles and functions in regard to the group, both during and following the tour, including preparation of a study tour report (by a few members), review of the draft by the entire study tour group, and presentation of finalized findings to a planned National Port System Development Workshop.
- Development of the detailed program for the study tour, and submission of a finalized budget to the Ministry of Communications and USAID, two weeks in advance of the tour. As part of this preparation effort, the specialist will need to conduct extensive communication (preferably using e-mail) with all individuals to be met with in five countries, and possibly as many as nine ports (one or two in each of four countries to be visited, plus the port of Singapore). All intended interlocutors should have, in advance, a clear understanding of exactly what is expected from each visit and discussion. These preparations can continue right up until the day of departure from Jakarta.
- Assistance during the tour, primarily professional assistance to ensure that each visit and discussion is useful to the group, and that appropriate questions are asked, and points are made. When opportunities present themselves, the specialist should also lead group internal discussions, assessing what they see and hear, and any lessons that might be applicable to Indonesia. The specialist will also need to provide administrative assistance to ensure that logistics run smoothly.
- Assistance to a report preparation team following the tour. The report, however, must not become a product of the specialist. Rather, the specialist is to guide those preparing the report, regarding scope, content, and format, and remind the preparation team of group conclusions arrived at during the tour.
- The specialist must attend the meeting of the entire tour group to review the draft report, and adopt the report as read or amended, as representative of the views of the group.
- The specialist might also attend the national workshop where the study tour report will be presented, but the specialist will not make the presentation.